

AusPress Surge Channel

Installation, Operation & Maintenance Manual (IOM)

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1.0 Scope

The AusPress Surge Channel is intended for use in commercial laundering where large washing machine(s) require discharged waters to be pre-treated before entering the sewer system.

Pre-treatment is required by most water utilities as a method to protect their sewer network;

- To collect lint and debris found in waters from the washing machines to prevent blockages to the sewer system beyond, and
- Allowing the hot discharge water to cool to a suitable temperature before entering the sewer system.

Note: Depending on the temperature of discharge water from the machines, additional cooling tanks and/or methods may be required to reach an acceptable temperature for sewer discharge by water authorities. Please consult the local authority to confirm before installation.

2.0 Product Description

AusPress Systems is the supplier of the product. All installation, certification and certificates of compliance are assessed and issued by others.

Product Supplier:	AusPress Systems Pty Ltd
Address:	PO Box 107, Corunna Avenue, Melrose Park SA 5039
Contact:	1300 287 773 sales@auspress.com.au

Product Name:	AusPress Surge Channel
Description:	A covered linear stainless steel channel incorporating removable lint screens & oversized silt basket.
Purpose:	To prevent debris and excessively hot waters from commercial washing machine(s) entering the sewer system.
Material:	316 stainless steel (unless otherwise specified).
Installation:	In-ground (standard) or above floor level (on request) with or without supporting stainless steel frame.
Dimensions:	Sized to accommodate the suitable water volume, calculated by the washing machine(s) to be connected, on a per project basis.
Inlet(s):	From above, through the solid lids (penetrations made onsite to suit).
Solid Lid(s):	Folded stainless steel lid, 1.5mm thick, with integrated frame and centre strengthening bar. Finger holes to allow individual removal for maintenance. Pedestrian loads only.
Open Grate:	Non-Slip wedge wire grate, at the outlet end, for regular visual inspection and ease of accessing the lint screens and silt basket. Pedestrian loads only.
Lint Screens:	Double screen configuration; 5mm aperture mesh lint screen plus additional 3mm aperture lint screen. Both are individually removable.
Silt Basket:	Removable silt basket with 3mm aperture mesh to sides.
Outlet Strainer:	Optional 'secondary strainer' with 3mm aperture mesh fixed into position. Several state authorities require this item to comply (such as WA).
Outlet:	110mm OD spigot outlet with integrated water seal (p-trap arrangement, 75mm seal minimum measured vertically).
Channel Fall:	Flat bottom, fall to outlet standard.
Grates:	Pedestrian Class A load rating, unless otherwise requested.

3.0 Design Considerations

Surge Channel Sizing

The AusPress Surge Channel is designed per instance, based on data provided, including:

- The actual model of washing machine, and
- Quantity of machines, and
- Discharge programme (ie all machines at once), and
- The physical constraints of the room.

This often results in a large channel volume that can be installed either above floor level, or in-ground depending on the situation. This information is required at the beginning of the design process.

Drawings are prepared and issued to the purchaser for review and acceptance before manufacture.

Invert Level

The surge channel discharge invert level (IL) shall be checked by the installer before installation as suitable. This may well determine at what level the channel will be installed. At the time of design, the channel is nominated to be:

- In-Ground – where the channel is installed flush with the floor level and the floor finish is confirmed as either concrete/tiled or vinyl sheet flooring.
- Above Floor – where the channel is installed on the floor or on a stainless steel frame. Note the washing machines are often elevated to suit this type of installation.

Floor Finish

At the time of design for in-ground channels, the floor material of the room is to be confirmed.

Two options are available:

- Square Edge – Suitable for concrete, epoxy or tiled floors, or
- Vinyl Lock Edge – Suitable for vinyl or marmoleum flexible sheet flooring.

Maintenance Access

Physical access to the entire channel is to be considered, providing space to stand outside the channel, removal of the lids and regular removal of the filter screens for cleaning.

Visual access of the open grate is preferred for regular inspection of the lint screens and filter basket for cleaning.

Corrosion Resistance

The channel is manufactured from stainless steel, grade 316 unless otherwise noted. Stainless steel has a high resistance but as with all materials, is not resistant to everything and may be prone to pitting or damage from the interaction with *chlorides or chlorine* in certain conditions. These conditions are dependent on the grade of stainless, temperature, concentration and exposure.

Some cleaning chemicals exceed the resistance levels with unintended damage occurring to the material surface, such as common bleach (Sodium hypochlorite). Refer to Tech Note (TN.01) from our website (www.auspress.com.au) or contacting technical@auspress.com.au for more information.

Dissimilar metals shall avoid contact with stainless steel, such as galvanised or zinc coated fixings or otherwise.

4.0 Installing

Transport, Delivery & Packaging

The AusPress Surge Channel is supplied as a single piece channel, on a timber pallet and wrapped in protective plastic film.

The person accepting the item from the transport company is responsible for the inspection of the items for correctness, damage and completeness at the time of receipt.

It is recommended the channel is kept wrapped in a dry, flat, out of direct sunlight, secure and protected location until installation.

Unpacking and Handling

Handling of the channel is recommended by forklift while still secured to the timber pallet. Care is required when lifting off the channel alone (ie off the pallet) by hand with a minimum of 2x people. Dragging, tipping and other uncontrolled methods may damage the channel shape or surface finish.

The loose accessories such as the covers, grates and filter screens are within the channel for transport. Outlet components are supplied often in a separate carton with the channel. Ensure these items are accounted for and stored in a suitable location.

The top exposed edge is covered with a PVC 'duct' tape to prevent scratches and contaminants during transport and installation. It's recommended this tape remains affixed until commissioning and flooring has been completed.

Preparation

- A concrete base pad is a common method for leveling and fixing the channel to the correct position. Levelling angles are provided fixed to the channel sides for use with threaded rod and 2x nuts (rod and nuts by installer).
- Prepare the connection to the sewer pipework from the channel. A rubber ring seal connection is required for a watertight seal. The channel outlet OD is 110mm. For HDPE and PVC pipe materials, use an expansion socket; for cast iron use an 'Ensign' joining socket; for stainless no adaptor is required if a ring seal socket is provided on the sewer drainage.
- Confirm the sewer connection point from the channel is at the correct height, refer to the manufacturing drawings for confirmation.

Installation

The AusPress Surge Channel is installed by positioning the channel into place first. The loose accessories such as covers, grates and filter screens are installed later, as part of commissioning prior to use. In addition to the points below, installation shall be in accordance to AS 3600.2:2021 and local sanitary drainage requirements.

- 1) Prior to positioning the channel in place, fold out the numerous anchor tags on the sides of the channel (supplied for in-ground installations only towards the top of the channel).
- 2) Connect the channel outlet to the sewer pipework, ensuring a suitable seal and fall.
- 3) Secure through the levelling angles, positioned at the bottom of the channel, into the concrete pad with either threaded rod (ie M10) or masonry anchors. Using the threaded rod method, adjust the channel height using 2x nuts, one either side of the leveling angle to ensure the channel unit is level & to the correct FFL height. Lock in the final position with the top nut. If using masonry anchors, the concrete pad must be at the correct level as this method does not offer fine adjustment. Confirm the channel is at correct height and is level.
- 4) Provide and pack a stiff, non-shrink structural mortar bed (minimum mix ratio 1:3 cement to clean sharp sand, or an approved polymer-modified structural repair mortar) beneath the entire base footprint of the stainless steel channel.

- 5) Tie anchor tags to steel reinforcement. This will help prevent movement and floating of the channel during concreting and also earth the channel to the reinforcing.
- 6) Cover the channel opening with plywood to ensure concrete and other foreign matter does not enter during construction. The PVC 'duct' tape to the top perimeter shall remain affixed to protect from concrete splatter. Clear labelling or signage indicating the channel is not to be stood on or driven over is recommended.
- 7) For a neat finish and allowing subtle future movement, edging around the channel can be formed to provide a 3-5mm spacer gap from the concrete for a suitable sealant to be installed post-pour.
- 8) Concrete footing is poured, ensuring areas around the channel are vibrated to remove possible air pockets under or adjacent the channel.
- 9) After the concrete is set, and before final floor finish is applied (eg epoxy coating), fill the perimeter gap (if any) made between channel & concrete pour with a suitable polyurethane sealant (such as Sikaflex-11FC), installed to the manufacturer's instructions. Silicon and other porous sealants are not suitable.
- 10) Protect the channel and stainless steel from ongoing construction activities including acids, sparks, excessive loads, point loads, scratching or metal swarf.

Commissioning

- 1) Remove the plywood and PVC 'duct' tape protections. Clean any debris that may be within the channel and ensure clean.
- 2) Fit the accessories, noting the 5mm lint screen is upstream of the 3mm lint screen.
- 3) Lids will require inlet holes to be cut onsite, using a suitable hole saw and hole sized to suit the washing machine discharge pipework. Remove all swarf. The entire channel shall be covered with lids and/or grates with no panels missing or left open.
- 4) Open grate is positioned above the outlet and filter basket for visual inspection.
- 5) Test fill the channel with potable water and rinse before use.
- 6) Provide the builder and/or owner with this document (IOM), normally documented with the project hand-over records and documents.

5.0 Operation and Maintenance

Operation

The user of the system is under an obligation to ensure the system is maintained in a serviceable and safe condition at all times. It is expected the facility owner reviews the operations as part of their regular safety assessments and make suitable actions accordingly.

The frequency of clearing the lint debris may be more for high use or high solid situations. We recommend the surge channel is included into the ongoing operations procedures.

Where the channel is not safe for operation, or not operating as expected, cease use of the connected washing machines, isolate and/or tag as out-of-service, until the channel is inspected and the issue resolved by suitably trained persons.

Task	Frequency	Actions
Visual inspection of the lint screens	Weekly	With build up of debris, remove the screen from the channel to a suitable cleaning area. Remove debris with a soft brush into a bin. Do not wash the debris into a sink, the channel or the sewer system. Inspect for damage.
Visual inspection of the filter basket	Weekly	With build up of debris, remove the screen from the channel to a suitable cleaning area. Remove debris with a soft brush into a bin. Do not wash the debris into a sink, the channel or the sewer system. Inspect for damage.
Internal inspection of the channel	Monthly	Remove the grate, lids and filter basket to inspect the internal surface of the channel for build-up, rust marks and overall cleanliness. Maintain as required. Replace all on completion.
Replacement of Washing Machine(s)	When Applicable	Data sheets for the new machines shall be compared to the existing machine specifications for washing discharge flow volume and rates to deem is suitable with the installed channel design specifications. Channel may not be suitably sized for larger rates of volume, frequency or flow.

Maintenance

AusPress products require little maintenance. In most environments, little or no maintenance is necessary. Protection is the best option to avoid problems and obtain a long operational life. Refer to our Tech Note TN.29 Cleaning & Maintaining Stainless for more details. In general,

- Protect from any contact with, grinding and welding sparks, metal shavings, corrosive chemicals or any material or process which may occur during construction and ongoing.
- Prevent unsuitable chemical contact with the stainless, externally or from the washing machine waters. This includes cleaning chemicals with common bleach (Sodium hypochlorite) which are not suitable at any concentration! Please contact technical@auspress.com.au for confirmation if you're unsure.
- Visual inspection for any 'rust' spots caused by foreign debris such as hair clips. Ensure these spots are removed using a clean scotch bright cleaning pad only, then thoroughly rinse with potable water.
- If installed in locations effected by coastal conditions or high levels of beach sand, a regular cleaning regime is to be implemented to prevent build up.
- Where there is heavy coating, plastic or brass tools can be used. With especially persistent coating, diluted citric acid can be used to loosen the deposit. This must be flushed with large quantities of water afterwards.

In cases of difficulty or specific information, please contact AusPress for technical advice.

6.0 Product Warranty

This warranty is issued exclusively to the purchaser of the product described as “AusPress Surge Channel”.

AusPress Systems (also referred to as AusPress) provides a warranty that the product has been manufactured in accordance with the specifications, and to AusPress standard manufacturing capability and requirements.

The warranty is void if the product has been altered or modified without express permission of AusPress, or where the product is used for other than its intended design purpose.

AusPress provides warranty against failure for use as specified:

- All recommendations provided with and included in this document are adhered to.
- Installer(s) shall be trained and suitably qualified (ie licenced plumber).
- The product is used as designed and intended for, confirmed with AusPress at the time of ordering.
- All current technical information available from AusPress must be adhered to.
- Should non-potable water be used, the system must be drained immediately after use and flushed with “fresh potable water” within 24 hours.
- Salt water and/or sea water shall not be used.

Failure to comply with any of above criteria will result in this warranty being voided. AusPress is not responsible for failures related to installation methods or omissions.

Any variation to this warranty will only be issued in writing by an authorised employee of AusPress.

If after inspection by AusPress and our liability for breach of a condition or warranty of supply is limited in our absolute discretion to, and subject to our prior agreement in writing:

- The replacement of the goods or the supply of equivalent goods
- The repairs of the goods;
- The payment of the cost of replacing the goods or of acquiring equivalent goods; or
- The payment of the cost of having the goods repaired.

No claim under this warranty will be recognised unless:

- Claim is received in writing including photos.
- Payment for the product has been received in accordance with payment terms.
- Full settlement has been received by AusPress.

No claim involving labour charges or product replacement will be recognised by AusPress unless AusPress’ agreement in writing is obtained immediately any such problem becomes evident and prior to rectification.

With the exception of those conditions and warranties applied by the Trade Practices Act, or other consumer protection legislation and which may not be excluded, this warranty covers the complete liability of AusPress and all other warranties and guarantees expressed or implied are hereby expressly included so far as is permissible by law and settlement of any claim in accordance with the terms of this warranty shall fully discharge the liability of AusPress as to the fault in the product giving rise to any claim.

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