

## Operating and maintenance CARE, MAINTENANCE AND COMPLIANCE PACK

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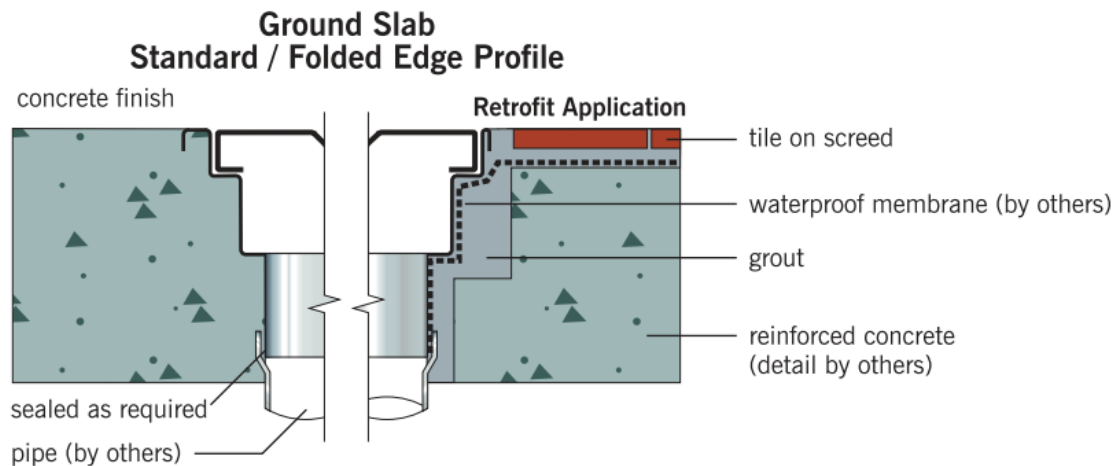
VERSION NO.	IMPLEMENTED BY	REVISION DATE	REASON
1	Kate Jennings	13 <sup>th</sup> March 2017	Additional maintenance and installation information added.
2	Kate Jennings	24 <sup>th</sup> August 2017	WaterMark certificate update
3	Kate Jennings	18.09.2020	WaterMark certificate update

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## 1 INSTALLATION: GENERAL DETAILS



For specific installation details, visit:

ACO Stainless industrial stainless steel linear drainage systems: [www.acostainless.com.au](http://www.acostainless.com.au)

QuARTz by ACO bathroom drainage: [www.quartzbyaco.com.au](http://www.quartzbyaco.com.au)

ACO BuildLine drainage for thresholds, balconies and green roofs: [www.acobuildline.com.au](http://www.acobuildline.com.au)

These installation details are to be used as a guide only. ACO recommends engineering advice is sought for specific projects.

## 2 INSTALLATION: GRATE LENGTH MODIFICATION

ACO recommends using an angle grinder with a minimum diameter of 125mm. Cutting discs should be inox iron and sulphur free. Grates do not require passivation post-modification using this methodology.

## 3 INSTALLATION: FYSH PLATE CONNECTION

Fysh Plates are a common method for connecting stainless steel channel sections and are factory fitted to the 'up-stream' end of channel sections.

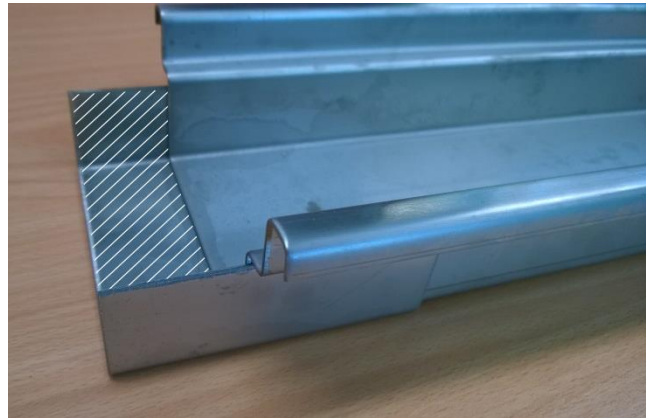
1. Set up the channel with outlet section at the confirmed outlet pipe location.  
*Refer to the project's construction plan detail for finished floor and drainage channel heights.*
2. Set up the corresponding channel section and 'dry fit' the channel end onto the Fysh Plate connector. Check that the desired finished floor levels are achieved.



3. Remove the 'dry fitted' channel section and apply an approved sealant to the base and sides of the Fysh Plate (as indicated by the hatching).

*Avoid applying excess sealant as this may prevent the channel section from being reset to desired height.*

*Ensure sealant is compatible with liquid being drained.*



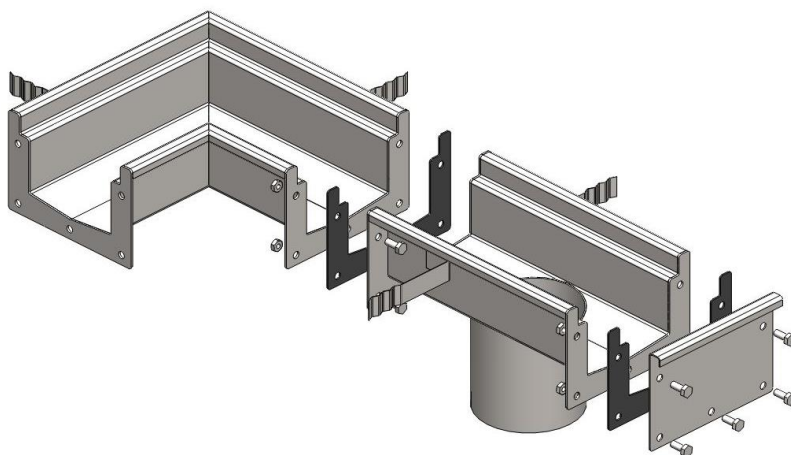
4. Reset the channel section in place on the sealant (ensure the joining channels meet). Remove any excess sealant that seeps through the joint.

5. Seal join with an approved aluminium coloured sealant.



## **4 INSTALLATION: FLANGE AND GASKET CONNECTION**

Flange and gasket connections (or bolted unions) are a common method for connecting stainless steel channel sections and provides a secure connection.



1. Place neoprene gasket between the two stainless steel connecting components and push together.
2. Place bolts through provided holes on either side of the connection point.
3. Use the nut provided to secure in place.
4. Repeat on all connection holes.
5. Ensure bolts are firmly tightened. Note: the gasket thickness once tightened should be 1mm.

## 5 INSTALLATION: VINYL SEAL

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Vinyl sheet is a common flooring finish in many applications where stainless steel drainage channels and gullies are required. A common method of jointing the two is by a mechanical clamping system. Although functional, a mechanical clamping mechanism can be cumbersome to fit, increase the potential for bacterial growth and is costly.

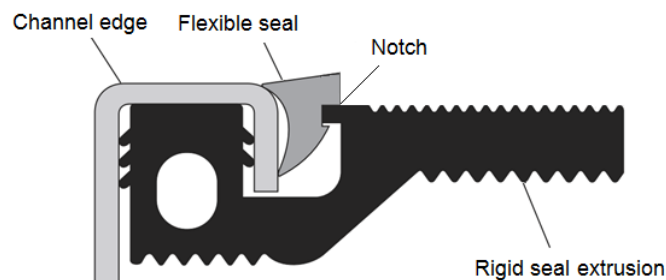
In order to overcome the frequently encountered problems of minimising bacteria traps and achieving watertight seals, ACO has developed Vinyl Seal. This is a unique solution that enables quick, easy and economical installation. In suspended slab applications, Vinyl Seal should not substitute a waterproof membrane. Contact a waterproofing expert for more information.

The Vinyl Seal is significantly more cost effective than the traditional mechanical type and is designed to fit ACO's stainless steel drainage channels. This method of sealing requires no additional tools or skills than those required for the professional fitting of vinyl sheet flooring, making the installation quick and easy.

Vinyl Seal can also be easily removed and re-sealed when the vinyl is replaced or refurbished without the need to disturb the channel or supporting detail in any way.

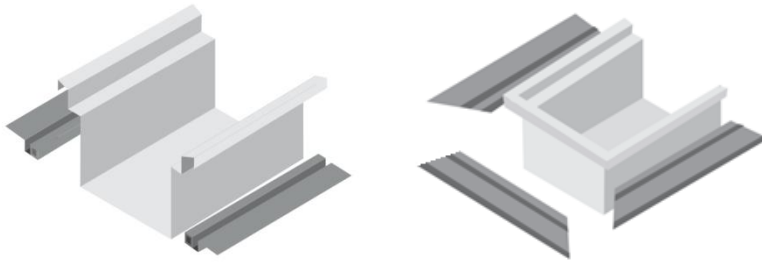
Note: Vinyl Seal is not suitable for installation in flexible decks, for example, timber floors.

### - INSTALLATION INSTRUCTIONS

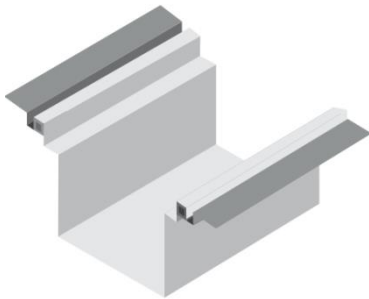


1. Cut the Vinyl Seal *rigid seal extrusion* to the required lengths and mitre as required to fit around all edges of the assembled channel. The *rigid seal extrusion* length must

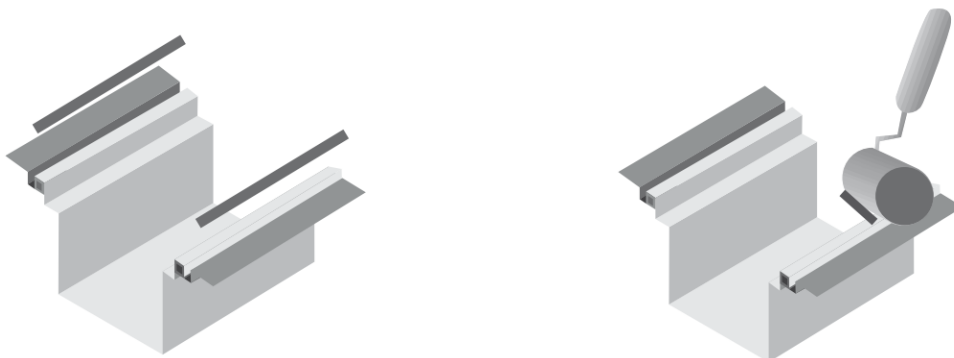
also account for mitred ends. Cut the extrusion to form mitres as required.



2. Press the *rigid seal extrusion* into the recess at in the *channel edge*, ensuring it is pushed fully in.



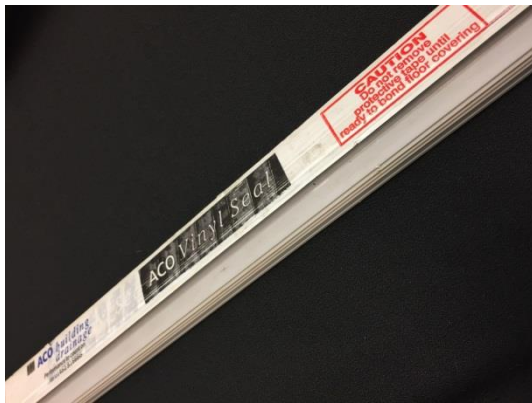
3. Press the *flexible seal* into position between the *channel edge* and *rigid seal extrusion*, making sure that the concave section of the seal faces towards the *channel edge* and that the groove in the *flexible seal* engages with the notch on the *rigid seal extrusion* (it may help to lubricate the *flexible seal* using a soapy solution when inserting). For corners, mitre the *flexible seal* and apply black mastic sealant.
4. For an even finish, roll the *flexible seal* into position using a suitable spline roller. The flexible seal **must** be inserted **before** the concrete/screed is applied.



5. Ensure the assembled *rigid seal extrusion* and *flexible seal* sits square and horizontal in the channel detail.
6. Install the channel in accordance with ACO's installation details, ensuring that the screed is flush to the top edge of the *rigid seal extrusion*. Protect the channel and Vinyl Seal assembly from splashes of concrete/screed.



7. Grout any voids at *rigid seal extrusion* joints at mitred corners, straight joints or fixings, to ensure a continuously supported floor finish.
8. Prior to laying the vinyl sheet flooring, peel the protective film from the *rigid seal extrusion* and ensure all surfaces are clean and dry.



9. Apply vinyl sheet flooring adhesive to floor surface, in accordance with vinyl sheet flooring manufacturer's instructions. Continue the application of the adhesive to the top surface of the *rigid seal extrusion*, taking care not to apply adhesive to *flexible seal*.
10. Lay the vinyl sheet flooring against the *flexible seal*. Prepare the welded joint between the *flexible seal* and vinyl sheet flooring as per normal installation practice. **It is imperative that the flexible seal, vinyl sheet and welding rod are fully fused to create a bond at this interface.**

Note: both *rigid seal extrusion* and *flexible seal* are manufactured from PVC.

## 6 CARE AND MAINTENANCE

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Although robust, all grades of stainless steel will stain and discolour due to surface deposits and can never be accepted as completely maintenance free. In order to achieve maximum corrosion resistance, the surface of the stainless steel must be kept clean. Provided the grade of stainless steel and the surface finish are correctly selected, and cleaning scheduled carried out on a regular basis, excellent performance and long service life are assured.

## **Factors affecting maintenance**

Surface contamination and the formation of deposits must be prevented in order to maintain a durable and hygienic surface. These deposits may be particles of iron or rust from other sources used on the building of new premises and not removed until after the stainless steel drainage products have been installed. Wire brushes and wire wool must not be used to remove marks and cement spillages as this will introduce iron impurities to the material surface. Care must also be taken when storing, erecting or cutting carbon steel near to stainless steel.

Industrial and naturally occurring atmospheric conditions can produce deposits which can be equally corrosive, e.g. salt deposits from marine conditions.

The working environment can offer more aggressive conditions, for example the high humidity found in swimming pools increases the speed of discolouration and therefore requires maintenance on a more frequent basis.

Modern processes use many cleaners, sterilisers and bleaches for hygienic purposes. These must be used in accordance with makers instructions to avoid discolouration and corrosion on the surface of any quality stainless steel.

Strong acid solutions are sometimes used to clean masonry and tiling of buildings, but they should never be permitted to come into contact with stainless steel. If this should occur, the acid solution must be removed immediately by significant and repetitive applications of water.

## **Maintenance programme**

With care taken during fabrication and installation, cleaning before handing over to the client should present no problems, although more attention may be required if the installation period has been prolonged.

Where surface contamination is suspected, immediate attention to cleaning after site fixing will encourage a trouble free product.

Advice is often sought concerning the frequency of cleaning stainless steel. As a general rule, clean the metal when it is dirty in order to restore its original appearance. This may vary from once - four times a year for external applications or it may be once a day for an channel in hygienic or aggressive situations.

## **Cleaning methods**

Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by a clear water rinse is usually quite adequate for many industrial applications. An enhanced aesthetic appearance will be achieved if the cleaned surface is finally wiped dry.



Problem	Cleaning Agent	Comments
Routine cleaning	Soap or mild detergent and water (such as washing up liquid).	Sponge, rinse with clean water, and wipe dry if necessary.
Fingerprints	Soap or warm water or organic solvent (e.g. acetone, alcohol).	Rinse with clean water, wipe dry if necessary.
Stubborn stains and discolouration	Mild cleaning solutions	Rinse well with clean water and wipe dry.
Oil and grease marks	Organic solvents (e.g. acetone, alcohol).	Clean after with soap and water, rinse with clean water and dry
Rust and other corrosion products	Oxalic acid. The cleaning solution should be applied with a swab and allowed to stand for 15–20 minutes before being washed away with water.	Rinse well with clean water (precautions for acid cleaners should be observed).

## 7 WATERMARK



### WaterMark Certificate of Conformity

Australian Certification Services Pty Ltd grants to the WaterMark Approved User:

**ACO Pty Ltd**

Trading as ACO Pty Ltd

the right to use the WaterMark as shown above in conjunction with the Certificate No. on product/s as identified in the WaterMark Schedule and as listed on the WaterMark database [www.abcb.gov.au/Product-Certification/WaterMark-Certification-Scheme](http://www.abcb.gov.au/Product-Certification/WaterMark-Certification-Scheme) which have been shown to comply with the appropriate Applicable Specification referred to below and as amended from time to time. The WaterMark User is granted a licence to use the WaterMark subject to the rules governing the use of the WaterMark.

Product Type:	Stainless Steel Waste Fittings
Product Use:	Sanitary Plumbing
Brand:	ACO
Certification Specification/s:	WMTS 040:2016 Waste pipe connection outlets and gratings separate or integral
Conditions or Limitations:	To be installed in accordance with Plumbing Code of Australia (PCA)

Paul Greig  
General Manager

Issue Date	14 <sup>th</sup> September 2020
Initial Issue Date:	20 <sup>th</sup> September 2011
Expiry Date:	19 <sup>th</sup> September 2025

Certificate No.: 23687 (formally 23120)

This Certificate is issued by a JAS-ANZ accredited certification body. The ABCB and JAS-ANZ do not in any way warrant, guarantee or represent that the product the subject of this Certificate conforms to the WaterMark Certification Scheme Rules, nor accepts any liability arising out of the use of the product. The ABCB disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this Certificate. The WaterMark Certification Scheme is a conformity assessment scheme based on ISO/IEC 17067. This Certificate may only be reproduced in its entirety



## 8 TERMS AND CONDITIONS

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### **Payment**

All pricing is in Australian Dollars, excluding GST.

### **Terms**

Whereby buyer has an approved credit status, payment is Net 30 days from end of month in which invoiced.

Buyers without approved credit status, must pay in full upon invoice prior to delivery. Interest charges on all outstanding amounts at the rate of 2% per annum above the National Australia Bank Base Rate compounded quarterly.

### **Freight**

All freight charges are as per quotation or Ex works ACO Pty Ltd.

### **Missing or defective material**

Missing or Defective material must be reported in writing to ACO's Customer Service Department within 48 hours of receipt of shipment.

### **Damaged material**

Damaged materials must be noted on the delivery docket at final destination point.

The receiver must file a claim with the carrier (refer Standard Conditions of Sale). ACO is not responsible for material damaged in transit.

### **Taxes**

All State and Federal taxes are additional.

### **Returns**

Returned material is subject to a 25% restocking charge (subject to change without notice).

A Return Material Authorisation (RMA) number must be obtained from ACO Pty Ltd before any material is dispatched.

Return material is subject to the following conditions:

- a) All return material should be in a saleable condition
- b) Return claim to be made in writing 2 days from delivery
- c) Material must be returned to ACO Pty Ltd within 30 days of date of invoice
- d) All freight costs are the responsibility of those returning the material

All non-standard and fabricated material cannot be returned for credit.

### **Changes**

ACO Pty Ltd reserves the right to change prices, design and materials of any products listed at any time.

### **Standard conditions of sale**

Available on request.

## 9 WARRANTY

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Warranty information is extract from Standard Conditions of Sale. Request full document from ACO if required.

### 15. Consumers

If the Customer is a Consumer:

(a) The goods come with guarantees that cannot be excluded under the Australian Consumer Law. The Customer is entitled to a replacement or refund for a major failure and to compensation for any other reasonably foreseeable loss or damage. The Customer is 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.

(b) The guarantees under the Australian Consumer Law are given by the Supplier.

(c) If the Customer believes the goods do not comply with the statutory guarantees, they must contact the Supplier and the parties may make arrangements for the return of the goods. Any returned goods must be accompanied by proof of purchase. If the Supplier agrees that the goods do not comply with the statutory guarantee the Supplier will refund the costs of returning the goods to the Supplier and, in all other respects, act in accordance with its obligations under the Australian Consumer Law.

(d) No other guarantees or warranties apply to the goods unless a further and additional warranty is provided, in writing, to the Customer by the Supplier.

### 16. Limitation of liability

(a) Goods sold by ACO shall be of satisfactory quality but shall not be sold as fit for any particular purpose or as complying with any description unless the Buyer shall have informed ACO in writing that it is relying upon ACO's skill and judgement or upon such description and ACO shall have accepted such stipulation in writing signed by a Director. ACO shall not be responsible for any modifications made by the buyer.

(b) Subject to clauses 15(a) and 15(c), ACO will repair or replace any of the Goods or parts thereof which have been fully paid for by the Buyer in respect of any defects due to faulty materials or workmanship attributable to ACO or from ACO's failure to supply the Goods in accordance with the quality or specification ordered provided such claims are notified in writing to ACO in accordance with this clause. In the case of: (i) defects which would have been apparent to the Buyer on reasonable examination on delivery, the Buyer shall notify ACO of the defects in writing within 7 days of delivery; (ii) any other defects, the Buyer shall notify ACO of the defects in writing within 7 days of the date when the defects became apparent but in any event no later than 6 months after delivery; (iii) any failure to supply Goods of the quality or specification ordered, within 7 days of delivery. The Buyer must return the defective Goods to ACO and bear all delivery and return delivery costs. The Buyer agrees to provide all information and documentation to allow ACO to assess the claim and to inspect the Goods wherever located.

(c) To the fullest extent permitted by law:

(i) the obligations of ACO in respect of any defects due to faulty materials or workmanship attributable to ACO or from ACO's failure to supply the Goods in accordance with the quality or specification ordered are as set out in the Contract;

(ii) ACO shall not be liable to the Buyer for any consequential, special, incidental or other indirect loss or damage including loss of profit, loss of opportunity, business, revenue, goodwill or anticipated savings arising out of the performance, non-

performance or defective performance of the obligations of ACO irrespective of whether or not ACO was made aware of the possibility of such loss;

(iii) all express and implied warranties, terms and conditions in relation to the obligations of ACO including those implied by use, trade, custom or otherwise are hereby excluded;

(iv) ACO's total liability to the Buyer for breach of its obligations to the Buyer (including due to negligence) are at the option of ACO limited to replacing or resupplying the Goods or paying for the cost of replacing or resupplying the Goods or refunding the relevant price paid by the Buyer to ACO for the relevant Goods.

## 10 CONTACT INFORMATION

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For queries, servicing assistance and spare parts, contact ACO.

**ACO Pty Ltd**

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