

Load

Ratings

# **Hygienic** Performance

Partnering

with ACO

AusPress<sup>®</sup> Drainage

Self-draining internal design to prevent stagnant water pooling. Concrete, tiled, epoxy and vinyl sheet floor type suitable.

Epoxy edge lip infill for strength and hygiene.

HACCP & EHEDG approved.

Removable internal components for easier cleaning.

# **Experience** Counts

We were the first to supply stainless drainage in Australia and New Zealand.

We work with consultants and installers on specialised complex projects regularly.

In-house design staff with local fabrication available for project requirements.

# **Quality** to Install

Square, round and vinyl lock top designs available & stocked.

Temp

Suitable

Approved to WaterMark, Australian and international standards.

Easy adjust support legs standard with stabilising feet.

Designed specifically for hygiene and easy cleaning.

# **Reliable** Design

With the strength and chemical resistance qualities of stainless steel. Range of grate options for pedestrian, forklift and truck load requirements.

# **Environmental** Choice

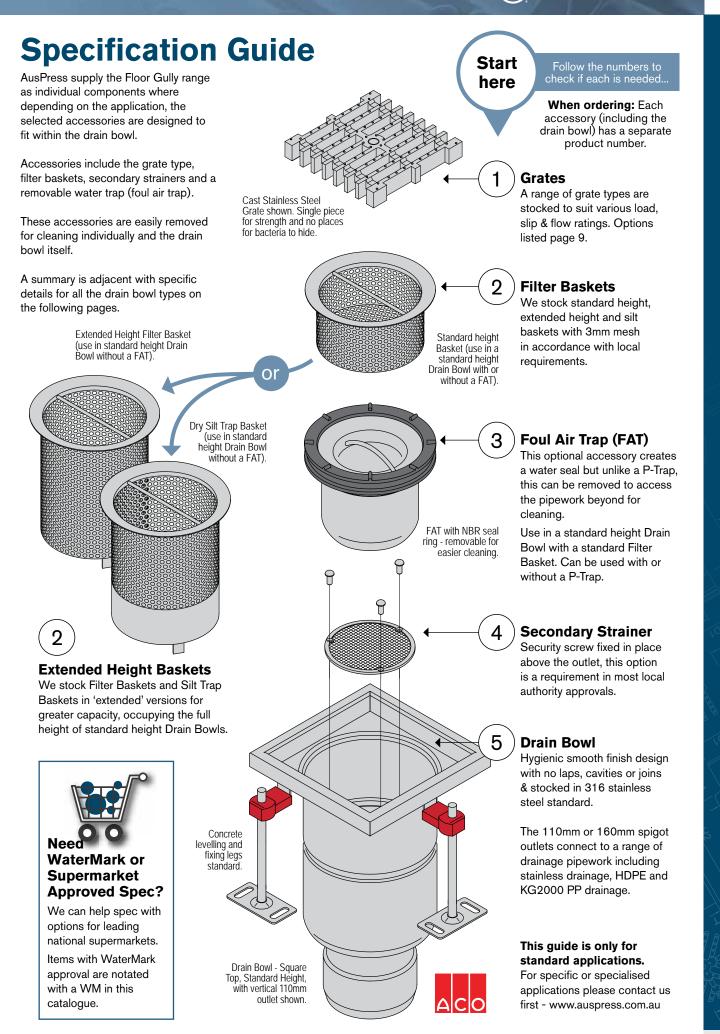
Long service life. Closed loop material (completely recycled to make more stainless).

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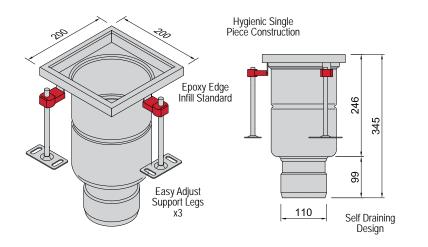
Hygienic

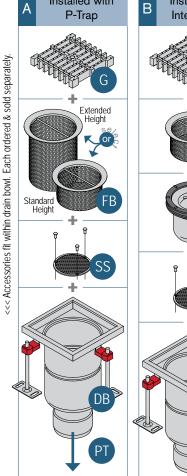
Design

**FLOOR GULLY** 









Installed with

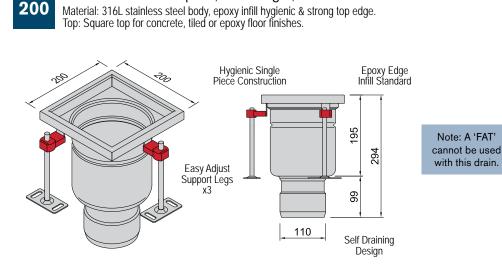


Installed with

#### Product No Ref Item Notes G Grate See 'G2.SQ' grate options page AD36. FB Filter Basket (Standard) AD.FB2.075.03 3mm aperture FBX Filter Basket (Extended) AD.FB2.200.03 3mm aperture SB Silt Basket (Solid Bottom) AD.SB2.200.03 3mm aperture FAT Removable Foul Air Trap (FAT) WM AD.FAT2.KIT Flow Rate<sup>‡</sup>: 3.5 L/sec SS Secondary Strainer Kit AD.SSK.110.03 3mm aperture DB Drain Bowl AD.DB2.SQS.110V PT P-Trap <sup>™</sup> AP.PT.110 Flow Rate<sup>‡</sup>: 3.4-10.4 L/sec

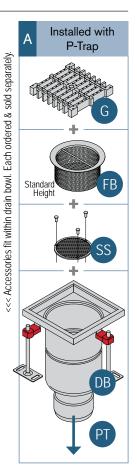
<sup>+</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. <sup>WM</sup> Item approved as part of a WaterMark approved assembly.

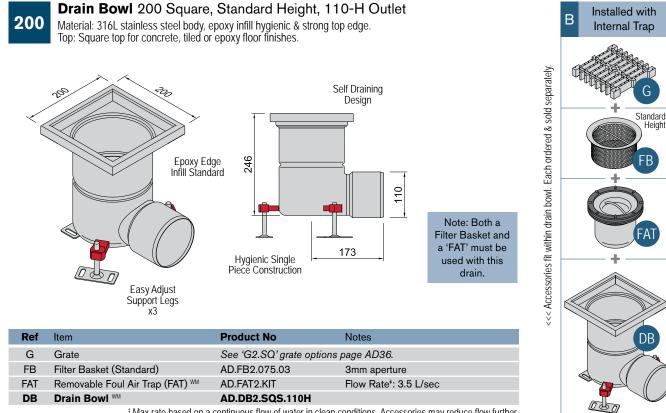
Drain Bowl 200 Square, Low Height, 110-V Outlet



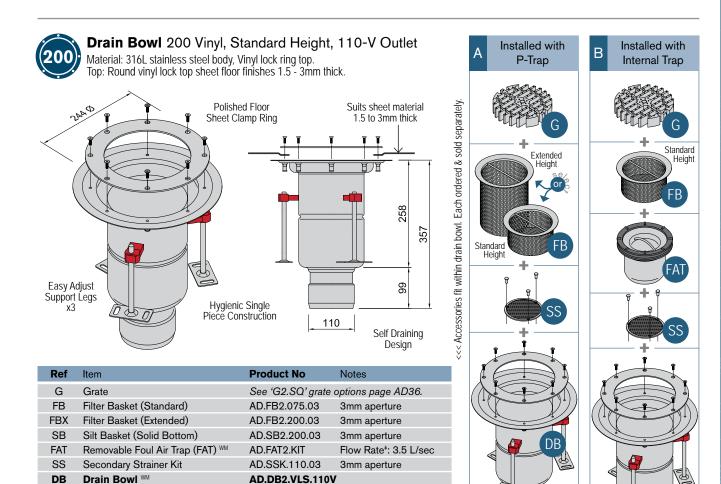
Ref	Item	Product No	Notes
G	Grate	See 'G2.SQ' grate options	page AD36.
FB	Filter Basket (Standard)	AD.FB2.075.03	3mm aperture
SS	Secondary Strainer Kit	AD.SSK.110.03	3mm aperture
DB	Drain Bowl	AD.DB2.SQL.110V	
PT	P-Trap <sup>WM</sup>	AP.PT.110	Flow Rate <sup>‡</sup> : 3.4-10.4 L/sec

<sup>‡</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. Item approved as part of a WaterMark approved assembly.





<sup>+</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. <sup>WM</sup> Item approved as part of a WaterMark approved assembly.

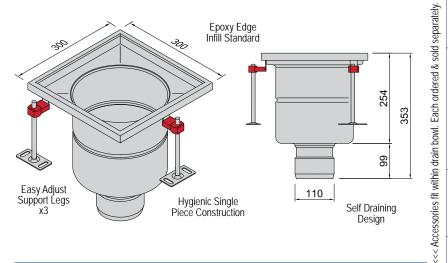


 PT
 P-Trap
 M
 AP.PT.110
 Flow Rate\*: 3.4-10.4 L/sec

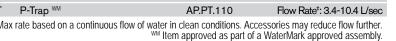
 \* Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further.
 \* Milem approved as part of a WaterMark approved assembly.

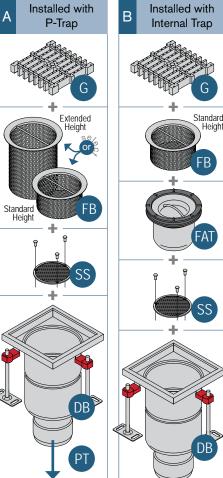
PT





Ref	Item	Product No	Notes
G	Grate	See 'G3.SQ' grate	options page AD36.
FB	Filter Basket (Standard)	AD.FB3.075.03	3mm aperture
FBX	Filter Basket (Extended)	AD.FB3.200.03	3mm aperture
SB	Silt Basket (Solid Bottom)	AD.SB3.200.03	3mm aperture
FAT	Removable Foul Air Trap (FAT) WM	AD.FAT3.KIT	Flow Rate <sup>‡</sup> : 4.6 L/sec
SS	Secondary Strainer Kit	AD.SSK.110.03	3mm aperture
DB	Drain Bowl	AD.DB3.SQS.110	V
PT	P-Trap <sup>™</sup>	AP.PT.110	Flow Rate <sup>‡</sup> : 3.4-10.4 L/sec
‡ Max	rate based on a continuous flow of water in	clean conditions. Access	sories may reduce flow further.



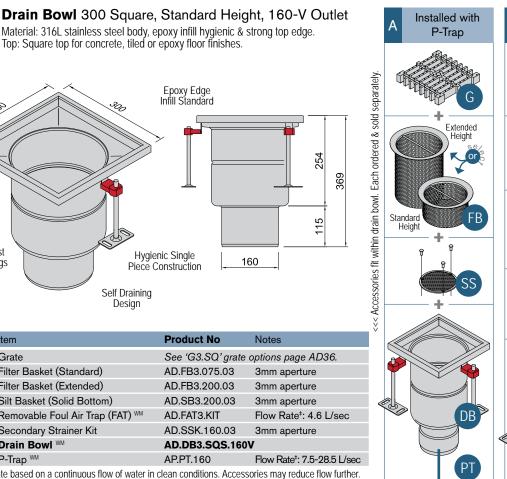


Height

FB

FAT

DB





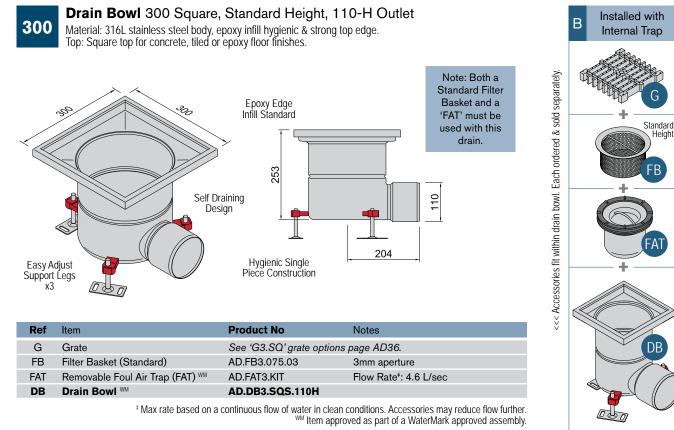
300

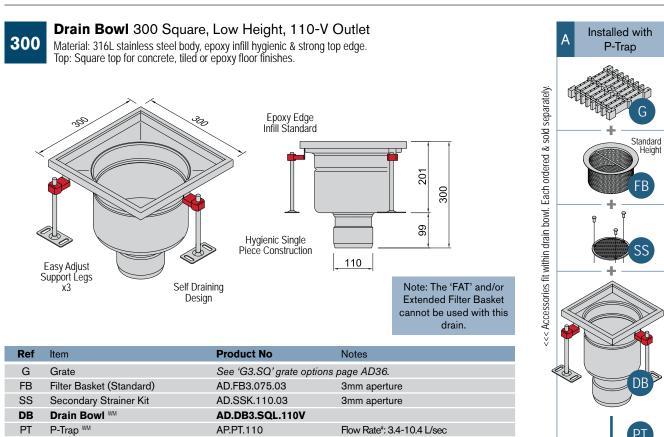
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Easy Adjust

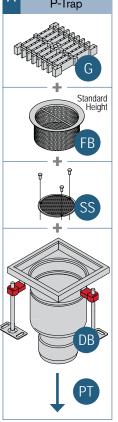
Support Legs х3 Ref Item G Grate Filter Basket (Standard) FB FBX Filter Basket (Extended) SB Silt Basket (Solid Bottom) FAT Removable Foul Air Trap (FAT) WM SS Secondary Strainer Kit DB Drain Bowl PT P-Trap W

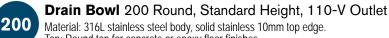
<sup>+</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. <sup>WM</sup> Item approved as part of a WaterMark approved assembly.



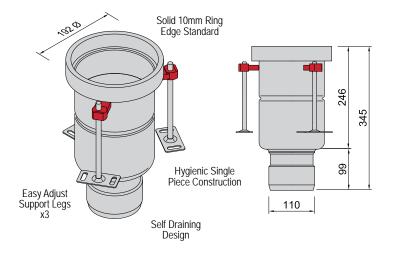


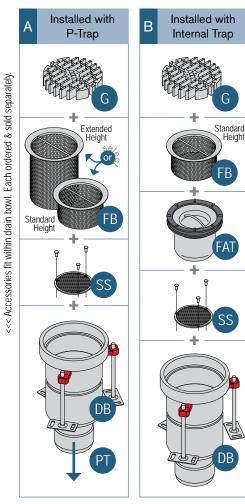
<sup>+</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. <sup>WM</sup> Item approved as part of a WaterMark approved assembly.





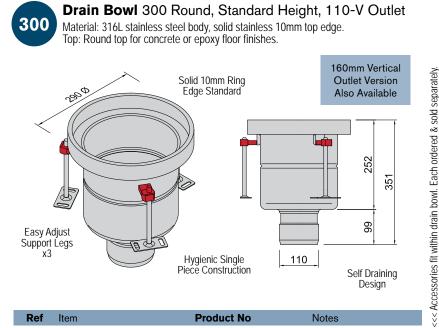
Top: Round top for concrete or epoxy floor finishes.





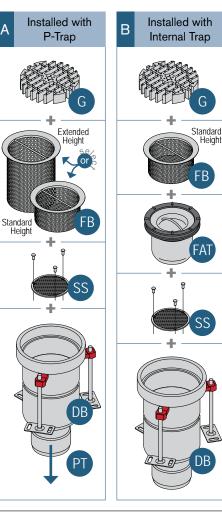
Ref	Item	Product No	Notes
G	Grate	See 'G3.SQ' grate option	is page AD36.
FB	Filter Basket (Standard)	AD.FB2.075.03	3mm aperture
FBX	Filter Basket (Extended)	AD.FB2.200.03	3mm aperture
SB	Silt Basket (Solid Bottom)	AD.SB2.200.03	3mm aperture
FAT	Removable Trap (FAT) 🚥	AD.FAT2.KIT	Flow Rate <sup>‡</sup> : 3.6 L/sec
SS	Secondary Strainer Kit	AD.SSK.110.03	3mm aperture
DB	Drain Bowl	AD.DB2.RDS.110V	
PT	P-Trap <sup>™</sup>	AP.PT.110	Flow Rate <sup>‡</sup> : 3.4-10.4 L/sec
‡ Max	rate based on a continuous flow of v	vater in clean conditions. Acces	sories may reduce flow further.

<sup>IVII</sup> Item approved as part of a WaterMark approved assembly.



Ref	Item	Product No	Notes
G	Grate	See 'G3.SQ' grate option	s page AD36.
FB	Filter Basket (Standard)	AD.FB3.075.03	3mm aperture
FBX	Filter Basket (Extended)	AD.FB3.200.03	3mm aperture
SB	Silt Basket (Solid Bottom)	AD.SB3.200.03	3mm aperture
FAT	Removable Trap (FAT) 🖤	AD.FAT3.KIT	Flow Rate <sup>‡</sup> : 4.6 L/sec
SS	Secondary Strainer Kit	AD.SSK.110.03	3mm aperture
DB	Drain Bowl	AD.DB3.RDS.110V	
PT	P-Trap <sup>™</sup>	AP.PT.110	Flow Rate <sup>‡</sup> : 3.4-10.4 L/sec
	rate based on a continuous flow of		

<sup>±</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further. <sup>WM</sup> Item approved as part of a WaterMark approved assembly.



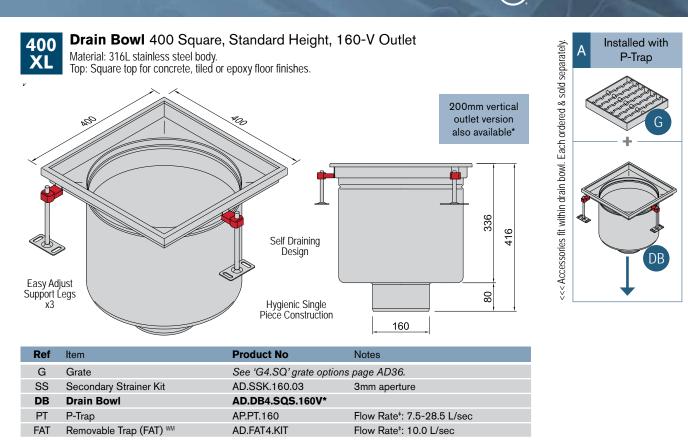
High Volume

Option

DB

524

Δ

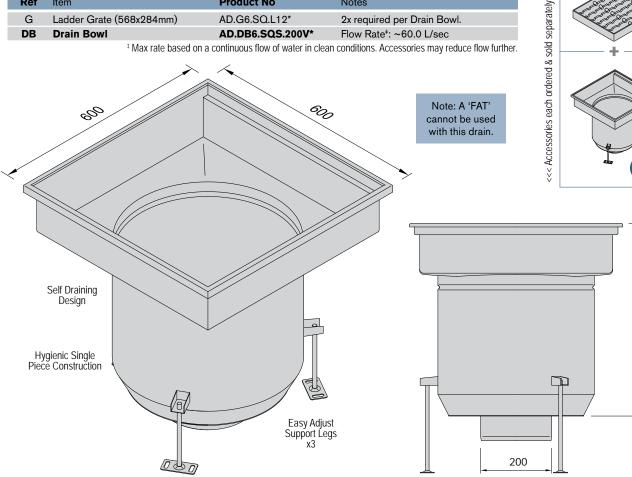


<sup>‡</sup> Max rate based on a continuous flow of water in clean conditions. Accessories may reduce flow further.

#### Drain Bowl 600 Square, Standard Height, 200-V Outlet 600 Material: 316L stainless steel body. **(**]

Top: Square top for concrete, tiled or epoxy floor finishes.

Ref	Item	Product No	Notes
G	Ladder Grate (568x284mm)	AD.G6.SQ.L12*	2x required per Drain Bowl.
DB	Drain Bowl	AD.DB6.SQS.200V*	Flow Rate <sup>‡</sup> : ~60.0 L/sec
	<sup>‡</sup> Max rate based o	n a continuous flow of water in clea	an conditions. Accessories may reduce flow further.



### G2.SQ Grate Options

168x168mm for 200 Square Top Drain Bowls

Style	Product Number	Class	Ultimate Load
L	AD. <b>G2</b> .SQ. <b>L12</b>	В	4250 <sup>±</sup>
М	AD. <b>G2</b> .SQ. <b>M</b>	-	1500*
С	AD. <b>G2</b> .SQ.C	В	3600 <sup>‡</sup>
S	AD. <b>G2</b> .SQ. <b>S</b>	-	5000*
w	AD. <b>G2</b> .SQ. <b>W</b>	-	1500*
GTS	AD. <b>G2</b> .SQ. <b>GTS</b>	-	5000*
GTP	AD.G2.SQ.GTP	-	5000*

300

#### G3.SQ Grate Options

268x268mm for 300 Square Top Drain Bowls

Style	Product Number	Class	Ultimate Load
L	AD. <b>G3</b> .SQ. <b>L12</b>	В	8000 <sup>‡</sup>
М	AD. <b>G3</b> .SQ. <b>M</b>	-	1500*
С	AD. <b>G3</b> .SQ. <b>C</b>	В	8150 <sup>‡</sup>
S	AD. <b>G3</b> .SQ. <b>S</b>	-	5000*
W	AD. <b>G3</b> .SQ. <b>W</b>	-	1500*
GTS	AD. <b>G3</b> .SQ. <b>GTS</b>	-	5000*
GTP	AD. <b>G3</b> .SQ. <b>GTP</b>	-	5000*



#### G4.SQ Grate Options

XL	368x368mm for 400	Square Top	o Drain Bowls
Style	Product Number	Class	Ultimate Load
L	AD. <b>G4</b> .SQ. <b>L12</b>	-	5000*
М	AD. <b>G4</b> .SQ. <b>M</b>	-	1500*

200 G2.RD Grate Options Ø170mm for 200 Round & Vinyl Lock Drain Bowls

Style	Product Number	Class	Ultimate Load
С	AD. <b>G2</b> .RD. <b>C</b>	С	5350 <sup>‡</sup>
L	AD. <b>G2</b> .RD. <b>L12</b>	-	12500*
М	AD. <b>G2</b> .RD. <b>M</b>	-	1500*
S	AD. <b>G2</b> .RD. <b>S</b>	-	8000*
GTS	$AD.\textbf{G2}.RD.\textbf{GTS}^{\Omega}$	-	5000*
GTP	$AD.\textbf{G2}.RD.\textbf{GTP}^{\Omega}$	-	5000*
W	AD. <b>G2</b> .RD. <b>W</b>	-	1500*

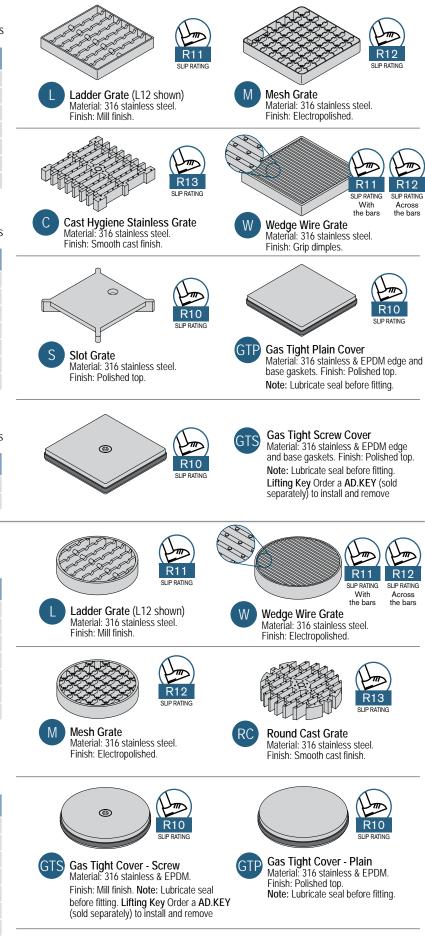
 $^{\mbox{\tiny \Omega}}$  Item not suitable for vinyl lock drain types.

300

#### **G3.RD** Grate Options Ø268mm for 300 Round Drain Bowls

Style	Product Number	Class	Ultimate Load
С	AD. <b>G3</b> .RD. <b>C</b>	С	15050 <sup>‡</sup>
L	AD. <b>G3</b> .RD. <b>L12</b>	-	12500*
М	AD. <b>G3</b> .RD. <b>M</b>	В	8000 <sup>‡</sup>
S	AD. <b>G3</b> .RD. <b>S</b>	-	8000*
GTS	AD. <b>G3</b> . RD. <b>GTS</b> $^{\Omega}$	-	5000*
GTP	AD. <b>G3</b> . RD. <b>GTP</b> $^{\Omega}$	-	5000*
W	AD. <b>G3</b> .RD.W	-	1500*

<sup>‡</sup> Load ratings to AS3996-1029 testing in kilograms (kg). Lesser values for solid wheel and moving wheel loads. Slip ratings tested to EN13036. \*Indicative load shown. Contact AusPress for further details.



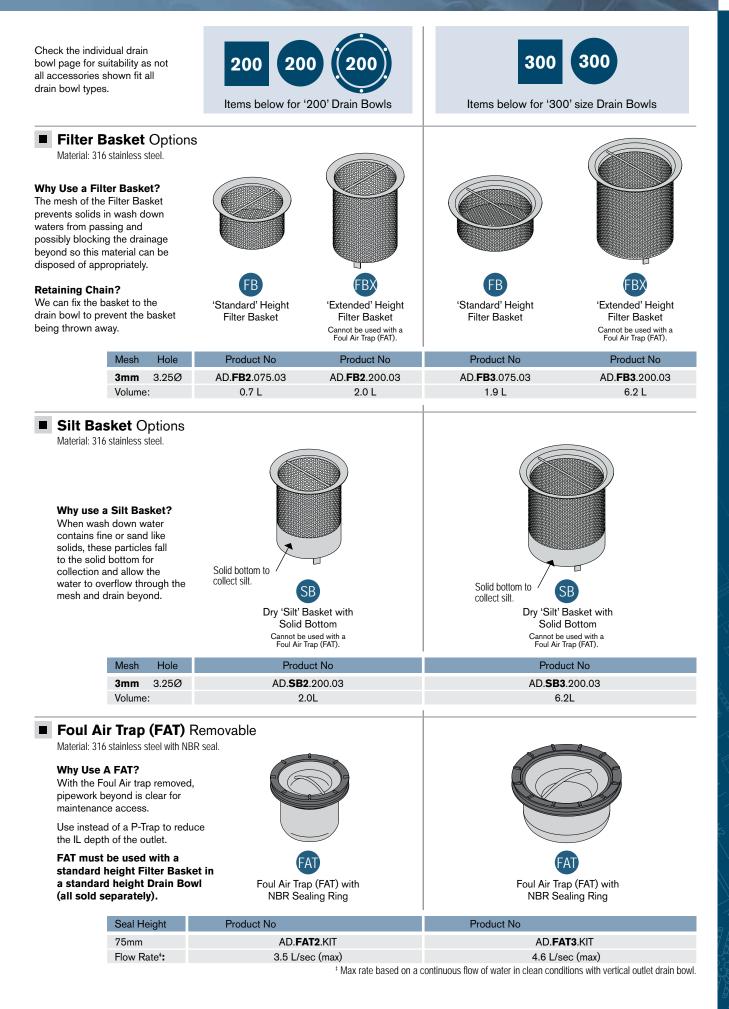
See technical section for more information.

Slot Grate

SLIP RATING

Material: 316 stainless steel.

Finish: Electropolished.



		1	- Str	ainer (Scr	ew Fixed)	Outlet OD	Aperture	Style	Product No
C	<b>)</b>		Sec	cured with 3	x torx screws to	110	3.2mm	SS1	AD. <b>SSK</b> .11
ф Т		the	Drain Bowl	outlet. Screw on request.	160	3.8mm	SS1	AD. <b>SSK</b> .16	
	into d	vays to fit rain ain Bowl	(			So Fix	quirement. Ple	thorities lis y Strainers ase ask if y	
	Eivi	na Dina						•	
(included v	vith screw fixe	ng Ring ed type)		ainer (Clip		Outlet OD	Hole Dia	Style	Product No
				required (n	t legs, no fixing not shown).	110 160	3.8mm 3.8mm	SS2 SS2	AD. <b>SSC</b> .11 AD. <b>SSC</b> .16
		Product	5.110	D1 110					
may be required. Ri length sold separate	ser ely.	AP.P.01	5.110 5.160	110 160	225 345		X4		
	ser ely. luct No	AP.P.01	5.110 5.160	110 160	225 345 2 X3	Flow Rate <sup>‡</sup>	→		
may be required. Ri length sold separate P-Trap Proc AP.F	ser ely. duct No PT.110	AP.P.018 AP.P.028 D1	5.110 5.160 I X 0 1:	110 160 11 X2 11 X2 32 300	225 345 2 X3 0 254	3.4-10.4 L/sec	X1 X4 2		
may be required. Ri length sold separate P-Trap Proc AP.F	ser ely. duct No PT.110 PT.160	AP.P.018 AP.P.028 D1 119 16	5.110 5.160 I X 0 1: 0 1:	110 160 (1 X2 32 300 90 403	225 345 2 X3 0 254 3 347		×		
may be required. Ri length sold separate P-Trap Proc AP.F	ser ely. duct No PT.110 PT.160	AP.P.018 AP.P.028 D1 119 16	5.110 5.160 I X 0 1: 0 1:	110 160 (1 X2 32 300 90 403	225 345 2 X3 0 254 3 347	3.4-10.4 L/sec 7.5-28.5 L/sec	×		×2
may be required. Ri length sold separate P-Trap Proc AP.F AP.F	ser sly. duct No PT.110 T.160 * Max r * Socket ainless steel,	AP.P.013 AP.P.023 D1 110 16 ate based of - Spign	5.110 5.160 I X 0 13 0 19	110 160 (1 X2 32 300 90 403	225 345 2 X3 0 254 3 347	3.4-10.4 L/sec 7.5-28.5 L/sec inditions with 20mm	×	eel, polishe	x2
may be required. Ri length sold separate P-Trap Proc AP.F AP.F Bend 45° Material: 316 st	ser sly. duct No PT.110 T.160 * Max r * Socket ainless steel,	AP.P.013 AP.P.023 D1 111 16 ate based of - Spigo mill finish.	5.110 5.160 1 X 0 13 0 13 0 13 0 13 0 13	110 160 (1 X2 32 300 90 403	225 345 2 X3 0 254 3 347 of water in clean co	3.4-10.4 L/sec 7.5-28.5 L/sec inditions with 20mm	head.	eel, polishe	x2
may be required. Rilength sold separate P-Trap Proc AP.F AP.F AP.F Material: 316 st Ring Seal: EPD	ser ely. duct No PT.110 PT.160 <sup>1</sup> Max r P Socket ainless steel, M x1 fitted.	AP.P.013 AP.P.023 D1 110 ate based of - Spigo mill finish.	5.110 5.160 1 X 0 13 0 13 0 13 0 13 0 13	110         160         132       300         300       403         inuous flow of a strangement for offset dir only - each linuon strangement for only - each linuon strangement for offset dir only - each linuon strangement for only - each lin	225 345 2 X3 0 254 3 347 of water in clean co	3.4-10.4 L/sec 7.5-28.5 L/sec inditions with 20mm Clean Material: Lid seal: Polished 310 steel top finis Allen head s fitted standa Security scre available on	head. rout (IP C 316 stainless st Neoprene gaske stainless sh. crews d. ws are request.	eel, polished	x2
may be required. Ri length sold separate P-Trap Proc AP.F AP.F Bend 45 <sup>°</sup> Material: 316 st Ring Seal: EPD Seal: EPD Product No AP.B.45.110	ser ely. duct No PT.110 PT.160 <sup>1</sup> Max r P Socket ainless steel, M x1 fitted. Y Socket ainless steel, M x1 fitted.	AP.P.013 AP.P.023 D1 110 ate based of - Spig mill finish.	5.110 5.160 1 X 0 13 0 13 0 13 0 13 0 13 0 13 0 13 0 13	110         160         160         110         160         110         110         160         110         110         160         110         1	225 345 2 X3 0 254 3 347 of water in clean co	3.4-10.4 L/sec 7.5-28.5 L/sec inditions with 20mm Clean Material Lid seal: Polished 316 steel top finis Allen head s fitted standa Security scre available on Product N AP.CO.11	head. rout (IP C 316 stainless st Neoprene gaske stainless d. ws are request. D D 11	eel, polished et. 1 D2 0 128	x2 d top finish.
may be required. Ri length sold separate P-Trap Proc AP.F AP.F Bend 45 <sup>°</sup> Material: 316 st Ring Seal: EPD	ser ely. PT.110 PT.160 * Max r P Socket ainless steel, M x1 fitted.	AP.P.013 AP.P.023 D1 110 160 ate based of - Spigo mill finish.	5.110 5.160 1 X 0 13 0 13 0 13 0 13 0 13 0 13 0 13 0 13	110 160 32 300 90 403 inuous flow of Double 45 b arrangemen for offset dir only - each l separately.	225 345 2 X3 0 254 3 347 of water in clean co	3.4-10.4 L/sec 7.5-28.5 L/sec inditions with 20mm Clean Material: Lid seal: Polished 310 steel top finis Allen head s fitted standa Security scre available on	head. rout (IP C 316 stainless st Neoprene gaske stainless d. ws are request. D D 11	eel, polished et. 1 D2 0 128	x2 d top finish.

A Retaining Chain can be fitted between the Filter Basket and the Drain Bowl to prevent the basket being left out of the Drain Bowl or discarded.

Constant of Constant	do	Sol and

Open %

42%

43%

Open %

36%

41%

5

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D2 Î

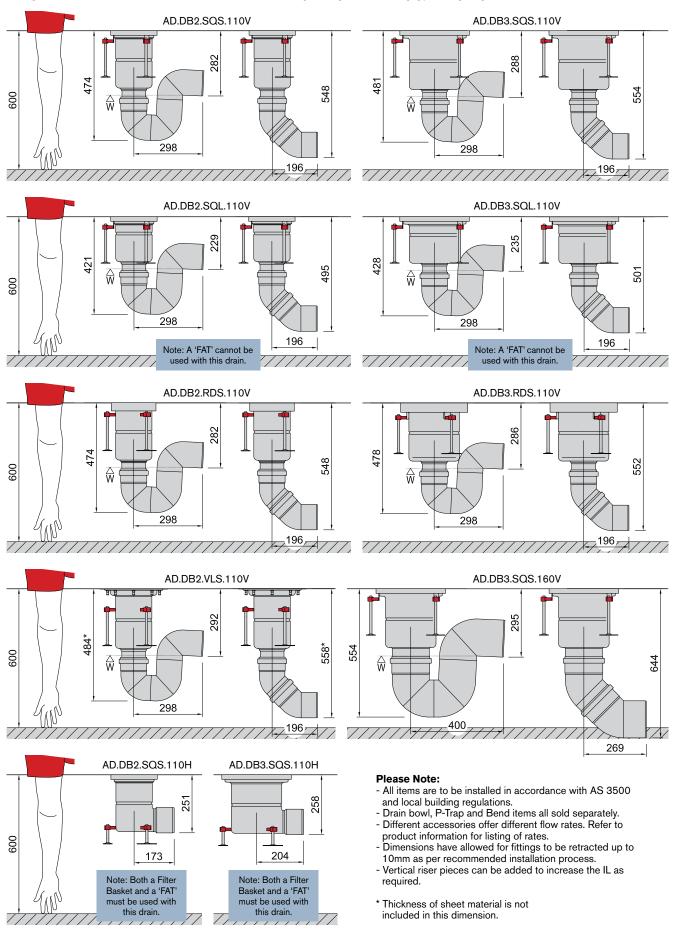
D1

Length	Product No
700mm	AD. <b>RCK</b> .0700*

When use the Mini         Basket?         With a collection         volume of 300mL, the         Mini Basket is used         when solids are few in         washdown water.         Suits items with a	Mini Filter Basket Material: 316 stainless steel.					
Suits items with a	Basket? With a collection volume of 300mL, the Mini Basket is used when solids are few in			Filter Basket Suitable to selected		
	Suits items with a	Mesh	Hole	Product No		
110mm spigot outlet. 3mm 3.250 AD.FB1.075.03	110mm spigot outlet.	3mm	3.25Ø	AD. <b>FB1</b> .075.03		

# **Floor Gully Invert Chart**

Configurations show the minimum invert level (IL) for each drain bowl type, with P-Trap and 2x 45 Bend scenarios. Fitting dimensions used from the AusPress Stainless Drainage Range, other fitting types may vary.



# **Technical Guide**

#### AusPress Stainless Drainage Products

The following information is only a guide. All work must comply with AS/NZ 3500 and any other relevant standards applicable to the installation. For specific installation assistance, or if you're in doubt, please contact us before proceeding.

As with all work using tools, the following points are to be adhered to and understood, along with the general safety practices such as wearing suitable clothing and equipment, being alert and focused, keeping the work area clear of obstacles and observing WHS (OH&S) requirements.

## Stainless Drainage Pipe & Fittings

#### Installing Stainless Drainage

The socket-spigot stainless drainage system comprises directional pipe and fittings (installed with flow into the socket, out the spigot) with the socket pre-fitted with a rubber ring to seal each join.

Refer to the installation guides at the front of each AusPress Drainage catalogue section for more information.

#### 1. Cutting

Stainless drainage pipe lengths are supplied in set lengths from 150mm through to 6.0m and may be cold cut using an approved pipe cutter that creates a bevel on the pipe end and assists fitting. Care should be taken as cut ends could be sharp.

Do NOT cut with drop saws or angle grinders.

Ensure the socket is retained on pipe lengths when cutting shorter. Spigot-spigot pipe lengths are not recommended.

#### 2. Ring Seals

Ring seals are fitted to each socket end with an EPDM type supplied pre-fitted as standard.

Check the ring seal is free of debris and the correct type of seal is fitted for the application and temperatures to be used. **Not sure? Ask!** 

Ensure the ring seal is fitted correctly with taper facing outward (see image).

Replace the seal if unsure or incorrect. Remove the seal to see the type labelled on the inside flat surface of the ring seal.

#### 3. Joining

Apply lubricant to ring seal & outside of spigots.

Material	Colour	<b>Application</b> <sup>‡</sup>	Operating Temp
EPDM	Black (Dull)	General use.	-40° to +100°C
FPM	Green (or Purple)	High temp, gas, oil, fuel.	-25° to +200°C
NBR	Black (Shiny)	Gas, oil, fuel.	-30° to +80°C

\*Confirm with AusPress prior to installation.

Preferred lubricant is silicon based (such as Super Glidex) but an approved soap based lubricant can also be used. Grease is not to be used as this may damage ring seals.

Push the spigot into the socket fully with a slight turning movement.



Joint is then pulled back 5mm to 10mm to allow for expansion and contraction within the socket.

#### 4. In-Ground Installation

When stainless drainage products are being installed inground, grade 316L stainless is to recommended.

Bedding and surrounding fill is to be a minimum thickness of 50mm pH neutral sand, free of chlorides and/or salts.

Crushed aggregate or fine gravel is NOT to be used.

Wrapping of inground drainage is not required for standard applications - contact us if wrapping is required for your installation.

**NOTE:** Check with us prior to installation if soil is constantly damp, wet or subject to often or occasional high water table levels, reclaimed or contaminated soil or soil of unknown origin is used!

#### 5. Bracketing

Bracketing is to comply with AS/NZ 3500.

If a dissimilar bracket metal is used, a protective isolation barrier is to be provided between the stainless surface and the bracket.

Changes of direction on main suspended drainage should be bracketed in both directions as close as possible to bend, to prevent lateral movement.

Extra bracketing may also be required at socket joints to prevent sagging.

#### 6. Good Practice

Preference installing 45° branches.

All main horizontal 90 degree direction changes should be made using  $2 \times 45^{\circ}$  bends with a minimum 150mm length between.

Venting procedures must comply with AS/NZ 3500.

#### 7. Welding

If welding is to be carried out, prior approval must be obtained from AusPress. Purge-welding procedures must be undertaken and all welds are to be pickled and passivated prior to installation and backfilling.

#### 8. Special Applications

Stainless drainage pipe and fitting products can be used for special applications such as ducting, vacuum, siphonic drainage and low pressure pumping applications. Please consult us for technical advice and vacuum specific products.

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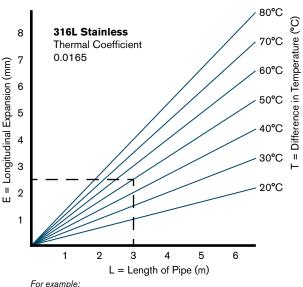


### **Expansion & Contraction**

Pipes in any direction (including horizontal suspended and horizontal in ground) must be supported to prevent the force arising through heat expansion can neither bend the pipes nor pull the spigot ends from the sockets.

Expansion Sockets are available for larger expansion and contraction movements.

The below graphs the expected expansion of grade 316 stainless steel with change in temperature. This is expressed as the formula E=L. T.



A 3m length pipe at ambient temperature (20°C) is filled with 70°C hot water. The temperature difference of 50°C (70°C minus 20°C) expands the grade 316L stainless longitudinally approximately 2.5mm overall.

Stainless has a very low coefficient of expansion under normal conditions; as a general rule, fixing points and expansion sleeves may be omitted if the temperature remains under 100°C *and* the maximum straight run of pipework is under 40m. Spigot ends must be pulled the 5 to 10mm from the socket after full insertion.

#### **Suspended Graded Installation**

Diameter	Support Spacing
50mm	2.2m
75mm	2.5m
110mm	2.8m
160mm	3.3m
200mm	3.0m
250mm	3.0m
315mm	3.0m

The distance between the suspended supports must be calculated on the basis of a permissible 1mm bending of the pipe. The bending for a single mounting is calculated for a water-filled pipe.

Spacing distances apply to continuous straight lengths. At joins in the suspended drainage, additional fixing points must be placed that either the branch or the through pipe is held directly under the sleeve (not on the socket part). Changes in direction shall be supported with suitable bracketing to prevent movement & the join separating.

If this is not possible, the span between fixing points must be reduced by half or, as an alternative, Joint Clamps can be installed for stability.

#### Vertical Installation

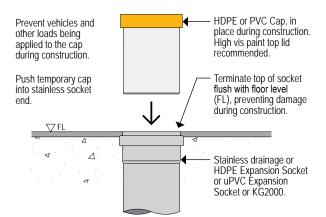
3.0m maximum gap between each support or designed to support water-filled pipe plus any expected loads.

Where larger inlets are connected, the pipe must be secured immediately below the inlet and under (not on) each socket.

Consideration for forces against change in directions for vertical drops must be provided to suit and securing any joins as part of the installation.

#### **Connecting at Floor Level**

Protecting the drainage & socket from damage & debris.



### **Fire Protection**

Stainless drainage is a class A1 fire resistant product (highest rating) and certified as non-combustible (EN1124 parts 1 & 2).

Penetrations that require fire rating can be sealed between the opening and stainless pipe with a suitably rated mortar or insulation/mastic product that is compatible with stainless steel (eg low chloride). Fire collars are not required for stainless pipework. Consult standards for local requirements.

#### Vacuum & Siphonic

Stainless drainage is suitable for vacuum (sewer) piping and siphonic (rainwater) installations. We recommended these systems are professionally designed - we have more information on request.

The material strength of stainless provides a high resistance to implosion and the rigid lengths are lightweight to install. We recommend Joint Clamps are used on each join and bracketing to resist the vibrations at 3m internals maximum or at a change in direction.

#### Handling & Surface Finish

Stainless is resistant and durable but care must be given during transport and installation to not damage the shape or stainless surface.

**Storing:** Ensure stainless is kept suitably protected from contaminants, welding and/or grinding sparks, excessive weight or over stacked. Long lengths are recommended to be handled by more than one person.

**Mill Finish:** A dull surface finish, suitable for drainage however not suitable for exposed or aesthetic applications (such as downpipes as it shows fingerprints). For exposed installations, polishing the external surface is available on request.

## Installing Floor Gully & Channel

#### **Stainless Drain Bowls & Channel Bases**

Both these systems are installed with the body/base fixed into position permanently with the accessories including grates, filter basket and foul air trap (FAT) fitted into the body/ base afterwards.

These instructions are based on common installation situations for our products. If conditions, requirements or situations vary, contact AusPress for advice before installing. Other elements, including structural, are to be designed and specified by suitably qualified others and shown here for illustration purposes only.

#### 1. Preparation

If to be installed in a recess, it should have a minimum 50mm gap on all edges (eg the cutout is 100mm wider overall than the channel) and 50mm deeper than the outer dimensions.

Remember to allow for the anchor tags and levelling angles in sizing the cutout hole size.

If connecting to metric drainage such as ACO Pipe<sup>®</sup>, Blucher<sup>®</sup> EuroPipe or KG2000<sup>®</sup>, the outlet spigot will push into a socket end connection. For HDPE and PVC, use an expansion socket; for cast iron use an 'Ensign' joining socket.

Standard outlet dimensions are 110mm and 160mm outside diameter (OD).

#### 2. Installing

Points are illustrated in the adjacent diagrams.

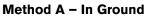
- Ensure drainage piping is set up at correct height to suit depth of floor drain chosen (refer to technical information for measurements).
- Position the support brackets for threaded rod or the supplied support legs to suitably support the drain bowl or channel base from moving.
- Ensure appropriate moisture barriers are used to prevent corrosion as best practice construction, such as under each support leg stand for suspended slabs.
- 4) Place the drain bowl or channel into position and align with the levelling supports.

Long channels with bolted flanges will require this to be completed in sections and with multiple people to prevent the channel from torquing.

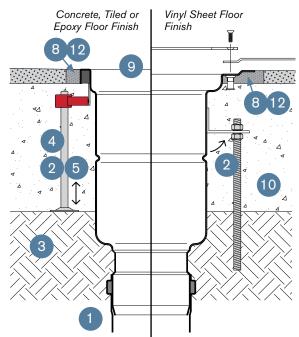
- Adjust each of the supports to adjust & level the drain bowl or channel to the correct height. Threaded rod is recommended to be secured with a second nut, one each side of the tag.
- 6) Tie anchor tags to steel reinforcement. This will help prevent movement or floating during concreting and earth the drain bowl or channel.
- 7) Confirm the drain bowl is at correct height and is level.
- Install 10mm thick x 20mm deep styrene foam to outside perimeter of the top of the drain bowl or channel edge.
- 9) Protect the opening with plywood or similar to ensure concrete and other foreign matter does not enter during construction.

- 10) Concrete footing is poured.
- 11) After concrete is set, and before final floor finish is applied (eg epoxy coating), remove the styrene foam from around outside perimeter.
- 12) Fill the gap made by the foam with an approved polyurethane sealant (such as Sikaflex-11FC) as per manufacturer's instructions and ensuring the product installation procedures are adhered to.

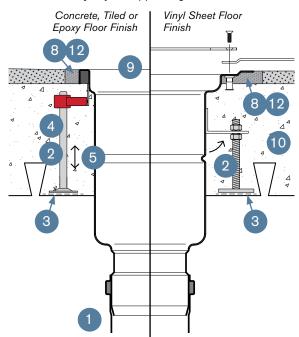
Two common methods are used to secure & level the drain bowl or channel when installing are shown below.



Use the easy adjust support legs or threaded rod.







#### 3. Installing Grates and Accessories

We recommend installing the grates and accessories as part of commissioning to prevent damage or loss of items during construction.

Remove any protective covering only if no damage can occur to the drain bowl or channel before use.

Fit the grate and accessories within the drain bowl as supplied. If a removable Foul Air Trap (FAT) is supplied, fit the rubber seal over the drain bowl bump first, then fit the FAT to the seal. The filter basket must be positioned above the removable Foul Air Trap (FAT) within the drain bowl.

Confirm the grating fitted is suitable for the traffic load and application prior to use.

Prevent construction traffic, scissor lifts, forklifts, vehicles or heavy loads from driving over an unprotected floor gully or channel.

#### 4. Bolted Flange Connections

Channels manufactured with bolted connections are supplied with the fixings and a Viton rubber gasket to assemble and join the channel sections together. Tighten bolts evenly and ensure the gasket is not over or under compressed.

#### **5. Special Installation Notes**

Site materials can contaminate and damage the surfaces. Ensure the drain bowl and channel are clear of debris and cleaned in the approved method to avoid damage.

It is recommended that channels greater than 2.5m in length or irregular shapes be handled and installed with multiple people. This is to prevent the channel from accidental twisting and being damaged.

#### 6. Flow Rates

Depending on the accessories installed and the drain bowl selected, the flow rates are expected based on 'clean' continuous flow of water, without solids. Flows with solids or contaminated water will experience lesser values.

Use the component with the lowest flow rate value when making flow calculations. Accessories such as Filter Baskets, Secondary Strainers and Silt Baskets will restrict the flow further, whether clean or otherwise.

#### Corrosion Resistance

#### **Resistance Against Corrosion**

316 stainless steel is resistant to corrosion when it is exposed to clean atmosphere (ambient air). The probability of corrosion is increased by contact with corrosionpromoting construction materials or by installation in corrosive atmospheres such as coastal areas or chemical production facilities.

We offer technical advice and have access to metallurgist specialists for water quality & purity testing for specialised applications or projects with specific needs.

#### **External Surface Protection**

High ground water, external conditions such as coastal environments and contaminated soils can all effect the external surface of stainless steel drainage.

In areas where a risk of damaging effects exists, installation of stainless without protection should be avoided.

If there is the risk of corrosive substances (eg. Unsuitably high chloride content waters, plaster, building materials containing chloride, specialised concrete, high ground water levels, nitrite or ammonium) acting on the drainage over prolonged periods, surface-mounting or suitable corrosion protection is recommended.

Protection against external corrosion must meet the following requirements:

Waterproof. Non-porous. Resistant to heat and ageing. Undamaged.

The minimum protection against external corrosion is coating, priming or painting. Denso<sup>®</sup> wrapping is also suitable. Plastic wrapping in not recommended. Contact AusPress for recommended protection options.

#### **Potable Water**

Corrosion-resistant steels do not react with potable water due to their protective chromium oxide layer. This makes stainless steel corrosion-resistant to potable water.

Local corrosion effects such as pitting or crevice corrosion can occur in water with unduly high chloride content. This can occur from excessive chlorous disinfectant use or naturally occurring such as in bore water. Therefore, the duration of application and concentration for use must be strictly observed.

The content of water-soluble chloride ions at ambient temperature in potable water and water which is similar to potable water should not exceed 250 mg/l (250 ppm).

Corrosion resistance decreases as the temperature increases. Therefore, AusPress must be notified of maximum media temperature and media contents (eg water analysis) to enable a suitability recommendation.

#### **Treated Water**

All water treatment methods such as ion exchange or reverse osmosis can be used with grade 316 stainless steel. No additional measures to protect against corrosion are necessary.

Stainless steel is corrosion-resistant to treated water such as:

Softened/decarbonised water.

Fully desalinated water (deionised, demineralised, distilled and pure condensates).

Ultrapure water with a conductivity of < 0.1  $\mu$ S/cm.

#### **Chemical Suitability**

Some chemicals are not suitable for stainless steel, diluted or otherwise. Please confirm suitability with the chemical manufacturer before use or contact AusPress for an assessment.

Complete a Project Info Sheet with the relevant MSDS and details from our website.

### Commissioning & Maintenance

Stainless products require little maintenance. In most environments, little or no maintenance is necessary. This would include wet areas and shower rooms with no washdown debris.

We recommend installing the grates and accessories as part of commissioning to prevent damage during construction.

Please ensure wash down waters or waste debris do not contain chemicals that are either high in chlorides or not suitable for stainless.

Care is to be taken to prevent scratching the stainless steel surface. Avoid any contact with, grinding and welding sparks, metal shavings, corrosive chemicals or any material or process which may cause failure during construction and also from future maintenance.

Ensure that all drains and accessories are properly "dry" cleaned to remove any foreign products from drain bowls etc, before initial wet clean. A visual inspection is recommended if any rust spots appear caused by these foreign products, please ensure these are removed using a scotch bright cleaning pad only, then thoroughly washed out with cold potable water. This process should also be followed after any maintenance once plant is commissioned.

In especially demanding environments, such as food processing, chemical industries and agriculture, it may be necessary to clean to avoid coating that could lead to corrosion later. Cleaning can be carried out with highpressure cleaning or high pressure flushing equipment using potable water.

If installed in locations effected by coastal conditions, a regular cleaning regime must be implemented to remove external salts and contaminants from the stainless.

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 cold potable water afterwards.

Cleaning of drains, including the emptying of filter basket, is to be performed at least once every shift and when required.

In cases of difficulty, users should consult us for technical advice.

#### **Disinfecting the System**

This is carried out to meet more stringent hygiene requirements, and in the event of severe microbial contamination. Contact us for more information.

To protect the environment and simplify handling, the Australian Drinking Water Guidelines (ADWG) recommend the use of hydrogen peroxide, however chlorine can also be used to disinfect.

Before commissioning the system carefully follow the instructions for use, particularly in relation to the contact time, maximum solution concentration and subsequent flushing requirements.

**Note:** To reliably prevent corrosion damage, during disinfection do not exceed the maximum chlorine concentration and contact times as tabled below:

The Australian water regulations allow dosing with up to 1.2mg/l of free chlorine in the disinfectant solution, provided a limit of 0.3mg/l of free (active) chlorine is not exceeded in the drinking water.

Quantities can be increased to 6mg/l and 0.6mg/l respectively in exceptional circumstances for example, high or increased micro bacterial contamination.

#### **Flushing the System**

In the case of stainless steel, the possibility of corrosion promoted by foreign matter such as dirt or swarf can be ruled out. It is therefore sufficient to simply flush the system with potable (drinking) water ensuring the content of watersoluble chloride ions is within approved AusPress limits.

When using any solution, ensure the system is flushed correctly and the manufactures instructions are followed in an accurate and safe manner at all times.

#### Commissioning

Systems must be commissioned in accordance with the applicable standards and regulations.

The installation contractor must familiarise the user(s) with the system. This is to be documented with a hand-over and acceptance record.

The user must also be provided with the manufacturer's maintenance and operating instructions for all installed valves and equipment.