HARMER®
BUILDING DRAINAGE

CI/SfB (52.5)

April 2016

Modular 120

Stainless Steel Floor Channels

ALUMASC®
WATER MANAGEMENT SOLUTIONS

Alumasc Water Management Solutions

The Alumasc Group plc has over 600 employees, generating a turnover of around £100 million. The aim is to focus on high quality, environmentally responsible building products within the construction arena in order to deliver first class customer service, technical support, long-term solutions and lasting relationships.

About Alumasc

Alumasc is a UK based supplier of premium building products. The majority of the group's business is in the area of sustainable building products which enable customers to manage energy and water use in the built environment.

All Alumasc businesses have strong UK market positions within their own individual market niches and several are market leaders. Alumasc sustains this strong strategic positioning by offering customers quality products, service and trust. For certain brands, Alumasc is seeking to leverage UK successes in international markets, with particular focus in America, the Middle and Far East, and Europe.

Alumasc fosters an entrepreneurial, achievement orientated culture whereby businesses are encouraged to innovate and respond quickly to local market needs within a cohesive group strategic and management framework. Alumasc businesses also benefit from the group's financial strength.

ALUMASC™
WATER MANAGEMENT SOLUTIONS

Alumasc Water Management Solutions (AWMS) is the new name in the industry for proven water management. It's a new joined-up brand that harnesses the expertise of four trusted brands:

Alumasc has been promoting the efficient use, retention, recycling and disposal of water within the built environment for over 80 years.

SKYLINE® FASCIA SOFFIT COPINGS
RAINWATER® GUTTERS AND DOWNPIPES
HARMER® BUILDING DRAINAGE
GATIC® CIVIL DRAINAGE

Now, it combines the knowledge and unique benefits of these four brands to provide one simple solution in water management.

CIBSE PATRONS
THE SOCIETY OF PUBLIC HEALTH ENGINEERS INDUSTRIAL ASSOCIATE

Quality & Sustainability

In addition to complying with environmental legislation, Alumasc is committed to developing its own measures to limit the adverse effects of its activities on the environment. To this end, Alumasc operates an environmental policy that fully integrates all aspects of company activities.

Quality

ISO 9001: 2008 Quality Management

Alumasc operates a quality management system which is independently audited to ISO 9001: 2008 certificate number 02/1832. The ISO 9001 framework governs the management of many aspects of Alumasc support services, manufacturing and transport operations. Alumasc extends quality management to its network of improved installers for single source accountability and peace of mind.

Sustainability

Alumasc actively pursues sustainability in the full range of products it offers and, with its partners and its suppliers, is committed to putting consideration for the built and wider environment at the core of all aspects of current business and future development.

ISO 14001: 2004 Environmental Management

Alumasc's manufacturing sites at St Helens, Merseyside and at Burton Latimer, Northamptonshire are audited to the ISO 14001: 2004 Environmental Management Standard. Alumasc is committed to achieving improvements across all of its operating sites, not only as a good neighbour to the surroundings of manufacturing plants, but in the responsible sourcing of raw materials and monitoring of the impact on the environment as a whole.

BREEAM Standards

BREEAM points, as a framework for analysis and scoring, allow easy comparison of the relative merits of different construction types and also comparisons between different construction product groups. The BREEAM points system promotes the use of materials with a proven sustainable message and allows designers to differentiate between products with true ecological credentials and those not achieving the benchmark.
Indicative ratings for building materials given in the BRE Green Guide to Specification also allows designers to choose those products or construction methods that will be most beneficial in contributing to a high BREEAM points score.

Testing & Certification

BS EN:1433 - Drainage channels for vehicular and pedestrian areas. This standard specifies definitions, classes, design and testing requirements, marking and quality control for drainage channels

Modular 120 - Features

Harmer Modular 120 features a high performance Stainless Steel modular channel system in a range of depths with a choice of grating finishes to suit a variety of internal drainage applications.

Applications

- Modular 120 is suitable for a wide range of applications, including School & Leisure, Food Production & Processing, Commercial Kitchens, Breweries, Retail and Chemical & Pharmaceutical.
- Off the shelf stocked product range.
- Designed to drain high volumes of effluent water.

Materials & Finishes

- Available as standard in grade 304 Stainless Steel and also available in made to order 316 grade Stainless Steel.
- All Stainless Steel is fully pickle passivated to ensure a high quality corrosion resistant drainage system.
- Available in a choice of 3 grate finishes (Anti-Slip, Quattro & Ladder) depending on design and load class requirements to BS EN:1433 - A15 (15kN) & C250 (250 kN)
- Supplied with a synthetic edge infill to all channel lengths to ensure a resistance to high loads.
- Channels are available in 1000mm or 500mm lengths.
- Available in a range of sloping and level invert depths from 50-100mm.

Performance

- Fully tested and classified to BS EN:1433 - *Drainage Channels for Vehicular & Pedestrian Areas.*
- Excellent corrosion resistance.

Installation & Fixing

- Suitable for tiled, resin or concrete floor applications.
- All channel lengths are supplied with concrete anchor tangs and levelling feet.
- Each channel section is jointed using bolted flange plates, with a neoprene gasket to ensure a water-tight seal.
- Channels are available with closing end plates.

Modular 120 - Typical Applications

Retail

Food Processing

Chemical & Pharmaceutical

Brewing, Bottling and Canning

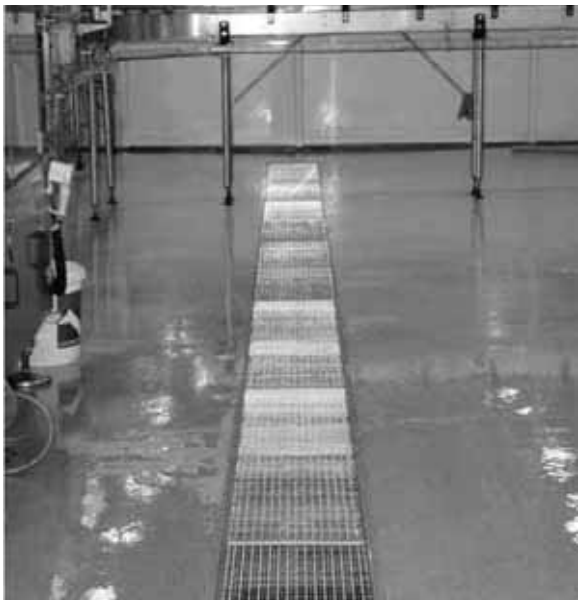
School & Leisure

Human & Animal Health Care

Modular 120 - Benefits

Benefits of Modular 120 include:

- The Modular 120 is a stocked channel range which is available on reduced lead times compared to alternative Stainless Steel channel solutions.
- Channels are supplied as standard with a vertical, trapped Ø110mm spigots suitable for direct outlet pipe coupling or socket connection. Spigots are supplied with a sieve as standard.
- Channel outlets are available in the centre or end of the channel length.
- The maximum flow-rate for the vertical outlet is 1.2 l/s (through the trap) making it an ideal solution for all applications including general wash-down and shower applications. The spigot outlet trap has a water trap depth of 50mm, which meets the requirements of BS EN:1253.
- Stainless Steel is the hygienic material of choice, known for its excellent anti-corrosion properties in areas where hygiene matters.
- The channel range is available with a variety of grating styles to suit a variety of applications and meet the requirements of BS EN:1433 up to Load Class C250.
- Channels are supplied with concrete anchors, to assist with robustness during installation.
- Levelling feet assist with setting out prior to backfilling of the channel system to ensure the channel is installed level and in accordance with our installation details.
- Each channel section is jointed using bolted flange plates, with a neoprene gasket to ensure a water-tight seal.
- Channels are available with closing end plates to suit the entire range.
- All channel lengths are supplied with a synthetic edge for increased resistance to high loads.



Modular 120 - Gratings

Standard Floor Channel Gratings

Channels are available in one standard width (120mm internal channel, 150mm overall), available in 1000mm & 500mm lengths with a constant or sloping invert depth.

The grating type is chosen according to the channel location, load and function required. In areas where forklift truck traffic is intense the Ladder grating is recommended, whereas the Anti-Slip Mesh is ideal where high drainage volumes are requied.

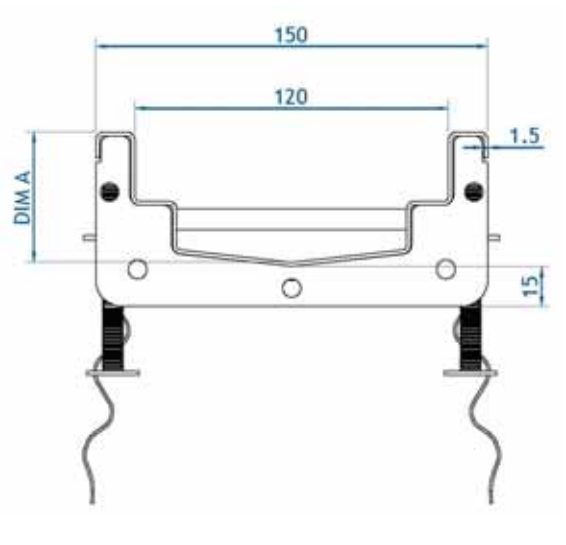
A range of gratings are available to suit load classes to BS EN 1433: 2002 – *Drainage Channels for vehicular and pedestrian areas*.

See table below:

Gratings (Grade 304 Stainless Steel)	**Load Class**	**Typical Applications**
	**A15kn**	**Anti-Slip** **Commercial Kitchens and light duty applications.**
	**A15kn**	**Quattro** **Leisure centre showers, barefoot areas and healthcare.**
	**C250kn**	**Ladder** **Industrial, food packaging areas and breweries.**

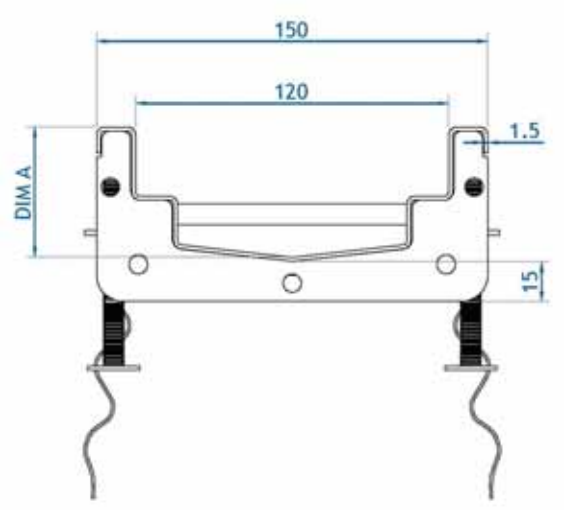
Modular 120 - Product Range

MODULAR CHANNEL CONSTANT DEPTH
Supplied with 2x flange joints, gaskets, fixing bolts, fixing tangs and levelling feet



Depth (DIM A)	Product Code
500mm channel length	
50mm	M550
60mm	M560
70mm	M570
80mm	M580
90mm	M590
100mm	M5100
1000mm channel length	
50mm	M1050
60mm	M1060
70mm	M1070
80mm	M1080
90mm	M1090
100mm	M10100

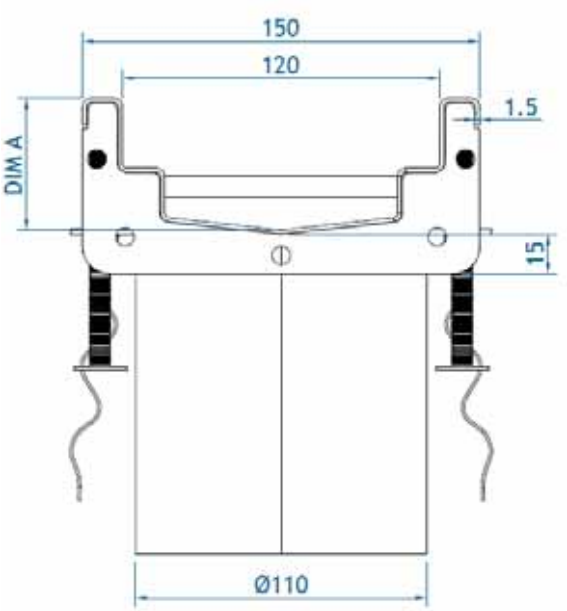
MODULAR CHANNEL SLOPING DEPTH
Supplied with 2x flange joints, gaskets, fixing bolts, fixing tangs and levelling feet



Depth	Product Code
500mm channel length	
50-60mm	M55060
60-70mm	M56070
70-80mm	M57080
80-90mm	M58090
90-100mm	M590100
1000mm channel length	
50-60mm	M105060
60-70mm	M106070
70-80mm	M107080
80-90mm	M108090
90-100mm	M1090100

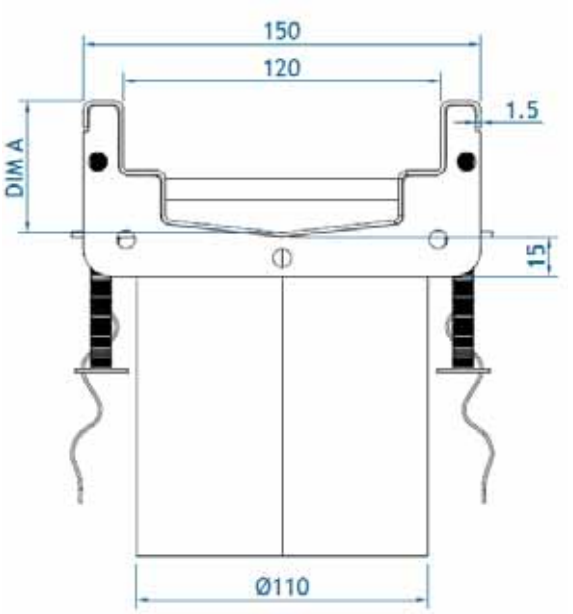
Modular 120 - Product Range

MODULAR CHANNEL (With Centre Outlet)
supplied with 2x flange joints, gaskets, fixing bolts, fixing tangs and levelling feet, foul air trap and sieve



Depth (DIM A)	Product Code
500mm channel length	
50mm	M550CO
60mm	M560CO
70mm	M570CO
80mm	M580CO
90mm	M590CO
100mm	M5100CO
1000mm channel length	
50mm	M1050CO
60mm	M1060CO
70mm	M1070CO
80mm	M1080CO
90mm	M1090CO
100mm	M10100CO

MODULAR CHANNEL SLOPING DEPTH (With End Outlet)
supplied with 2x flange joints, gaskets, fixing bolts, fixing tangs and levelling feet, foul air trap and sieve



Depth	Product Code
500mm channel length	
50mm	M550EO
60mm	M560EO
70mm	M570EO
80mm	M580EO
90mm	M590EO
100mm	M5100EO
1000mm channel length	
50mm	M1050EO
60mm	M1060EO
70mm	M1070EO
80mm	M1080EO
90mm	M1090EO
100mm	M10100EO

Modular 120 - Product Range

MODULAR ANTI-SLIP GRATING (25 X 2MM) A15kn

Length	Product Code
500mm	MMESH500
1000mm	MMESH1000

MODULAR QUATTRO GRATING A15kn

Length	Product Code
500mm	MQUAT500
1000mm	MQUAT100

MODULAR LADDER GRATING (25 X 4MM) C250kn

Length	Product Code
500mm	MLADD500
1000mm	MLADD1000

MODULAR END PLATE

Depth	Product Code
50mm	M050EP
60mm	M060EP
70mm	M070EP
80mm	M080EP
90mm	M090EP
100mm	M100EP

ACCESSORIES

Product	Dimension	Product Code
Replacement foul air trap	110mm	MMODFAT
Replacement sieve	110mm	MMODSIE
Sediment bucket	110mm	MMODBUC

*Not compatible if foul air trap is used

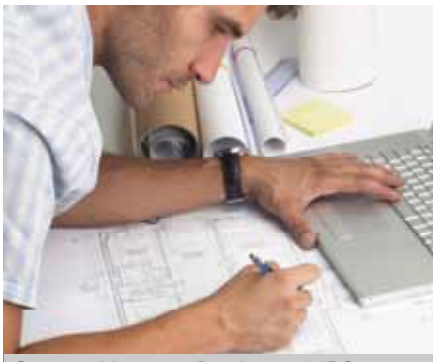
NBS Specification & General Specification

A full range of NBS specifications and floor drainage calculators are available via the Harmer online NBS Specification Builder at www.harmerdrainage.co.uk. For project specific specification advice, contact Harmer Technical Services.

NBS Specification

PRODUCTS

310 HARMER FLOOR DRAINAGE
Floor Construction: In-situ concrete with screen, to ceramic tile finish
Manufacturer: Alumasc Exterior Building Products Ltd, White House Works, Bold Road, Sutton, St Helens, Merseyside, WA9 4JG
Tel: 01744 648400, Fax: 01744 648401
Email: harmer@alumascwms.co.uk
Reference: Harmer Stainless Steel Channel Drainage System
Material: Austenitic Grade 304 Stainless Steel, pickle passivated
Sizes: 50mm depth minimum; width – 150mm
Outlet Type: Horizontal/Vertical
Grate Type: Perforated/Ladder/Mesh Anti-Slip/Plate
Load Class: A15/B125/C250
Accessories: Foul Air Trap/Sediment Basket
Jointing: Bolted flange joint with gasket



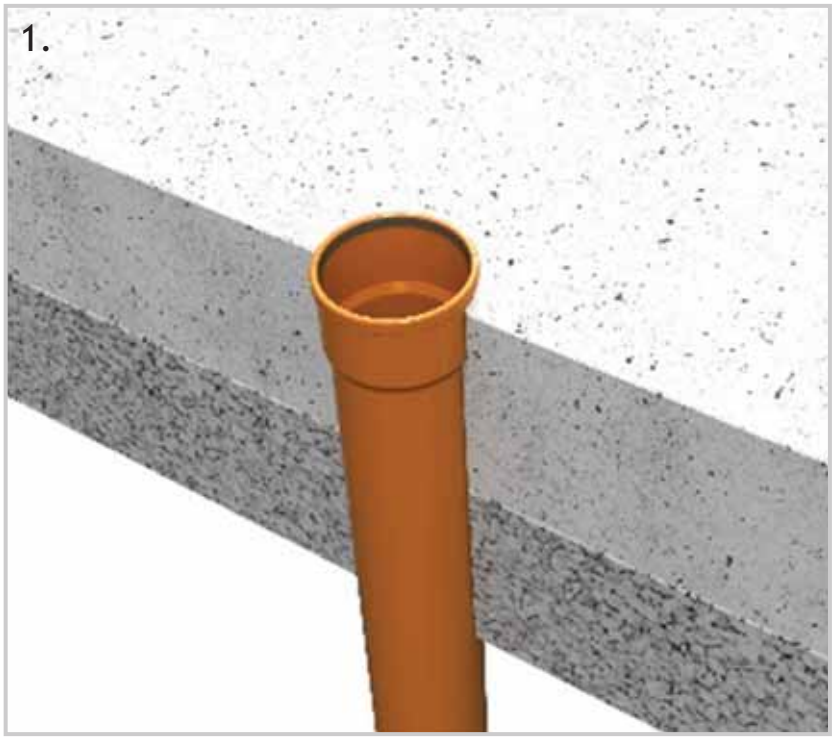
Create Harmer Drainage NBS specifications by selecting the required product range, profile, size and finish by visiting: www.harmerdrainage.co.uk

SAMPLE NBS SPEC
PRODUCTS - HARMER FLOOR DRAINAGE
Floor Construction: In-situ concrete with screed, to ceramic tile floor finish
Manufacturer:
Alumasc Exterior Building Products Ltd, White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG
Tel: 01744 648400,
Fax: 01744 648401
Email:
harmer@alumascwms.co.uk
Product: Harmer Stainless Steel Channel Drainage System
Material: Austenitic Grade 304 Stainless Steel, pickle passivated
Sizes: 50mm-80mm sloping invert, 2500mm long
Width: 155mm
Outlet Option: Horizontal gully
Grating: Ladder
Load Class: C250
Accessories: Foul air trap, sediment bucket, tundish
Jointing: Bolted flange joint with gasket

Modular 120 - Installation Details

The Modular 120 Channel range is available for Tiled, Resin or Concrete Floor applications. For Flexible Sheet Flooring applications, please contact the AWMS Technical Team for a fully design bespoke solution.

After careful unloading of the channel lengths, gratings and accessories, ensure all products are available for installation and free from damage or defect. Details may vary depending upon application.



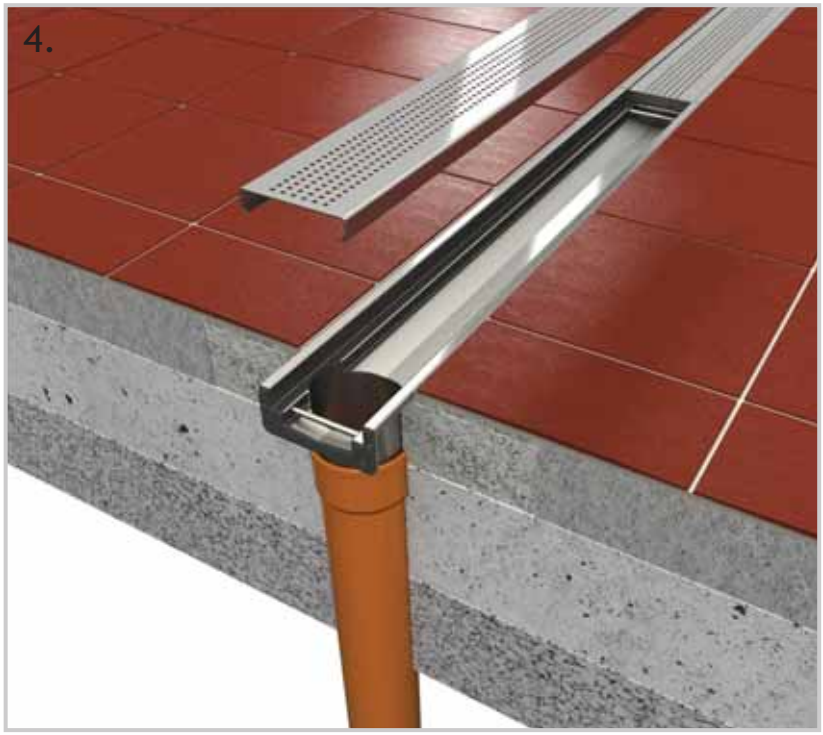
STEP 1

- Ensure Concrete Slab is smooth, level and free from loose material.
- Locate pipe 'pop-up' and grease as necessary.
- Pipe pop-up to be set above slab level to allow for either mechanical coupling or direct fix socket connection.

STEP 2

- Begin channel installation, from outlet location.
- Ensure channel is level, taking into account level of proposed floor finishes. Channel to be levelled using the provided levelling feet (assembly required).
- Channel lengths, end plates and outlet units to be bolted using supplied fixings and gasket seals. Tighten bolts from bottom centre, evenly working up to the channel top edge. This will ensure equal pressure is applied to the gasket. (See Figure A below).
- Plug channel outlet and fill the channel to the full height with water to check for leakages. Should leakage occur ensure fixing bolts are adequately fastened or replace perished gaskets.

Figure A



Ensure the channel is adequately protected during project completion

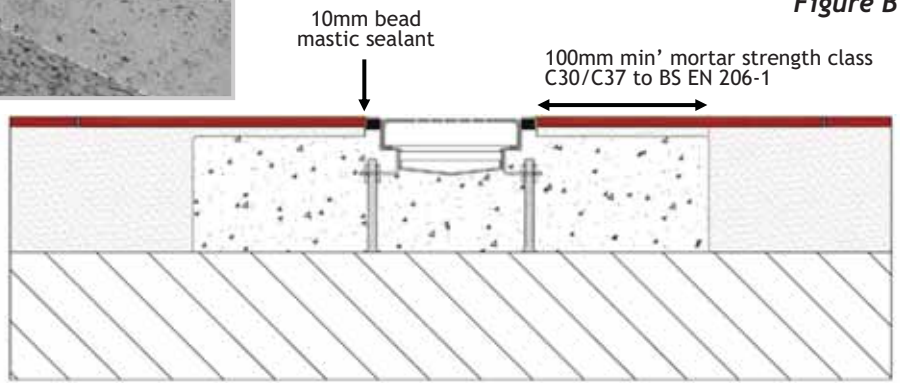
STEP 3

- Taking into account floor finish material, construct timber shuttering around the channel. Channel top edge should be set 1-1.5mm below FFL.
- Ensure gratings are fitted to the channel prior to concrete pour to prevent deflection of the channel walls.
- Fully extend the channel fixing ties.
- Ensure channel system is weighted down prior to backfilling to prevent the channel lifting during concrete pour.
- Pour concrete in accordance with Figure B below, ensuring suitable, compacted distribution to all channel edges before curing.
- Ensure the channel is clean and remove any residual concrete from channel and grating surface once concrete pour is complete.
- Replace grating.
- Allow concrete to cure in accordance with manufacturers guidelines.

STEP 4

- Remove shuttering and pour the remaining levelling screed, taking into account depth of floor finish required.
- Allow concrete levelling screed to cure.
- Lay tiles on an appropriate cement or tile-adhesive bedding. Allow to cure.
- A minimum 10mm bead of appropriate mastic sealant should be applied between the channel edge and the floor finish. Follow sealant manufacturer's guidelines.
- Clean all channel and grating surfaces with warm soapy water. Empty sieve/sediment buckets and refit gratings to finish. Flush channel with cold water.

Figure B



Chemical Resistance Data for Stainless Steel

The ability of stainless steel to resist corrosion depends on a number of factors including the type of steel used, the chemicals encountered and the ambient temperature.

The table indicates the extent and type of corrosion to be expected in any one year.

Chemical (with % concentration)		Temp (°C)	Steel Type 1.4301304	Steel Type 1.4404316L
acetic acid	(1%)	boiling point	<0.1	<0.1
acetic acid	(10%)	boiling point	0.1 - 1.0	<0.1
acetic acid	(20%)	boiling point	>1.0	<0.1
acetic acid	(20%)	20	<0.1	<0.1
acetic acid	(80%)	20	>1.0	<0.1
acetic acid	(100%)	boiling point	>1.0	<0.1
acetone		20	<0.1	<0.1
alcohol (methanol or ethanol)		20	<0.1	<0.1
alcohol propyl		20	<0.1	<0.1
aluminium chloride		20	0.1 - 1.0	0.1 - 1.0
aluminium sulphate		20	<0.1	<0.1
ammonia		boiling point	<0.1	<0.1
ammonia gas (dry)		20	<0.1	<0.1
ammonium hydroxide		20	<0.1	<0.1
ammonium nitrate		20	<0.1	<0.1
ammonium phosphate		20	0.1 - 1.0	>1.0
ammonium sulphate		20	0.1 - 1.0	<0.1
ammonium sulphide		20	<0.1	<0.1
ammonium chloride		20	0.1 - 1.0	0.1 - 1.0
ammonium chloride	(20%)	boiling point	0.1 - 1.0 SP	<0.1 SP
ammonium chloride	(43%)	boiling point	<0.1 SP	<0.1 SP
amyl chloride		20	<0.1	<0.1
aniline		20	<0.1	<0.1
barium chloride		20	<0.1	<0.1
barium hydroxide	(10%)	20	x	x
barium sulphate		20	<0.1	<0.1
barium sulphide		20	x	x
beer		20	<0.1	<0.1
benzene		20	<0.1	<0.1
benzoic acid		20	<0.1	<0.1
bichloride of potassium		20	<0.1	<0.1
bleach (with 12.5% chlorine)		20	x	x
boric acid		20	<0.1	<0.1
bromic acid		20	0.1 - 1.0	0.1 - 1.0
bromine water		20	>1.0	>1.0
butane		20	<0.1	<0.1
calcium carbonate		20	<0.1	<0.1
calcium chloride		20	>1.0	0.1 - 1.0
calcium chloride	(20%)	20	<0.1 P	<0.1 P
calcium chloride	(20%)	boiling point	0.1 - 1.0 SP	<0.1 P
calcium hydroxide		20	0.1 - 1.0	<0.1
calcium hypochlorite		20	>1.0	0.1 - 1.0
calcium sulphate		20	<0.1	<0.1
carbon dioxide		20	<0.1	<0.1
carbon disulphide		20	<0.1	<0.1
carbon monoxide		20	<0.1	<0.1
carbon tetrachloride		20	<0.1	<0.1
carbonic acid		20	<0.1	<0.1
caustic potash		20	<0.1	<0.1
caustic soda	(20%)	20	<0.1	<0.1

Chemical (with % concentration)		Temp (°C)	Steel Type 1.4301304	Steel Type 1.4404316L
caustic soda	(50%)	20	<0.1	<0.1
caustic soda	(80%)	20	>1.0	<0.1
chlorinated water		20	>1.0	0.1 - 1.0 P
chlorinated water	(1g/l)	20	0.1 - 1.0 P	0.1 - 1.0 P
chlorinated water	(1mg/l)	20	<0.1	<0.1
chlorine (dry)		70	<0.1	<0.1
chlorine (wet)		20	>1.0	>0.1
chloroacetic acid		20	0.1 - 1.0	0.1 - 1.0
chlorobenzine		20	<0.1	<0.1
chloroform		20	0.1 - 1.0	0.1 - 1.0
chromic acid	(50%)	20	>1.0	>1.0
chromic acid	(10%)	20	<0.1	<0.1
citric acid	(25%)	boiling point	>1.0	<0.1
citric acid	(50%)	20	<0.1	<0.1
copper nitrate		20	<0.1	<0.1
copper sulphate		20	<0.1	<0.1
cottonseed oil		20	<0.1	<0.1
cresol		20	<0.1	<0.1
cupric chloride		20	>1.0	>1.0
cupric cyanide		20	<0.1	<0.1
cyclohexane		20	<0.1	<0.1
cyclohexanone		20	<0.1	<0.1
diethylamine		20	<0.1	<0.1
dimethylaniline		20	<0.1	<0.1
disodium phospate		20	x	x
distilled water		20	<0.1	<0.1
electroplating solutions		20	<0.1	<0.1
ethyl acetate		20	<0.1	<0.1
ethyl chloride (chloroethane)		20	<0.1	<0.1
ethylene glycol		20	<0.1	<0.1
fatty acids		20	<0.1	<0.1
ferrous sulphate		20	<0.1	<0.1
fluorine gas (wet)		20	>1.0	>1.0
formaldehyde	(37%)	20	<0.1	<0.1
formic acid	(5-10%)	20	<0.1	<0.1
formic acid	(10%)	80	>1.0	<0.1
formic acid	(50%)	24-40	<0.1 - 1.0	<0.1
formic acid	(50%)	boiling point	>1.0	0.1 - 1.0
formic acid	(50%)	20	>1.0	<0.1
freon 12		20	<0.1	<0.1
fruit juices and pulp		20	0.1 - 1.0	<0.1
furfural		20	<0.1	<0.1
glucose		20	<0.1	<0.1
glycerine		20	<0.1	<0.1
hydrobromic acid	(20%)	20	>1.0	>1.0
hydrochloric acid	(0.5%)	20	0.1 - 1.0 P	<0.1 P
hydrochloric acid	(0.5%)	boiling point	>1.0	>1.0
hydrochloric acid	(1%)	20	0.1 - 1.0 P	<0.1 P
hydrochloric acid	(40%)	20	>1.0	>1.0
hydrogen peroxide	(90%)	20	<0.1	<0.1

Table Key

Annual Corrosion (mm) — Type of Resistance

<1.0 — Complete

0.1 - 1.0 — Partial

>1.0 — Non-resistant

x — Lack of data

Specific Corrosion Risks

P = Pitting Corrosion S = Stress Corrosion

Chemical (with % concentration)		Temp (°C)	Steel Type 1.4301304	Steel Type 1.4404316L
hydroquinone		20	<0.1	<0.1
hypochlorous acid (chlorine water)		20	>1.0	>1.0
iodine		20	>1.0	>1.0
lactic acid	(10%)	10-100	0.1 - 1.0	<0.1
lactic acid	(25%)	20	<0.1	<0.1
lactic acid	(50%)	20-80	0.1 - 1.0	<0.1
lactic acid	(50%)	boiling point	>1.0	0.1 - 1.0
linseed oil		20	<0.1	<0.1
magnesium chloride		20	>1.0	>1.0
magnesium sulphate		20	<0.1	<0.1
maleic acid		20	<0.1	<0.1
methyl chloride		20	<0.1	<0.1
methyl ethyl ketone		20	<0.1	<0.1
milk		20	<0.1	<0.1
mineral oils		20	x	x
nickel chloride		20	>1.0	>1.0
nickel sulphate		20	<0.1	<0.1
nitric acid	(30%)	boiling point	<0.1	<0.1
nitric acid	(50%)	boiling point	0.1 - 1.0	0.1 - 1.0
nitric acid	(65%)	80	<0.1	<0.1
nitric acid	(65%)	boiling point	0.1 - 1.0	0.1 - 1.0
oil		20	<0.1	<0.1
oils and fats		20	<0.1	<0.1
oleic acid		20	<0.1	<0.1
oleum		20	<0.1	<0.1
oxalic acid		20	<0.1	<0.1
palmitic acid	(10%)	20	<0.1	<0.1
perchloric acid	(10%)	20	>1.0	>1.0
perchloric acid	(70%)	20	>1.0	>1.0
petrol (refined)		20	<0.1	<0.1
petroleum oils		20	<0.1	<0.1
phenol	(5%)	20	<0.1	<0.1
phosphoric acid	(20%)	boiling point	<0.1	<0.1
phosphoric acid	(40%)	boiling point	<0.1	0.1 - 1.0
phosphoric acid	(85%)	95	>1.0	<0.1
phosphorous trichloride		20	<0.1	<0.1
photographic solutions		20	>1.0	>1.0
picric acid		20	<0.1	<0.1
potassium carbonate		20	<0.1	<0.1
potassium chloride		20	<0.1	<0.1
potassium cyanide		20	<0.1	<0.1
potassium hydroxide		20	<0.1	<0.1
potassium permanganate		20	<0.1	<0.1
propane gas		20	<0.1	<0.1
prussic acid		20	<0.1	<0.1
sea water (natural)		20	0.1 - 1.0 P	<0.1 P
silver nitrate		20	<0.1	<0.1
silver sulphate		20	<0.1	<0.1
sodium bicarbonate		20	<0.1	<0.1
sodium carbonate		20	<0.1	<0.1

Chemical (with % concentration)		Temp (°C)	Steel Type 1.4301304	Steel Type 1.4404316L
sodium chloride	(3%)	20-60	0.1 - 1.0 P	<0.1 P
sodium cyanide		20	<0.1	<0.1
sodium disulphide		20	<0.1	<0.1
sodium ferrocyanide		20	<0.1	<0.1
sodium hydroxide		20	0.1 - 1.0	<0.1
sodium hypochlorite		20	0.1 - 1.0	<0.1
sodium principal	(20%)	50	<0.1	<0.1
sodium principal	(20%)	100	<0.1	<0.1
sodium principal	(40%)	100	0.1 - 1.0	<0.1
sodium sulphate		20	<0.1	<0.1
sodium sulphide		20	0.1 - 1.0	>1.0
sodium sulphite		20	0.1 - 1.0	<0.1
sodium thiosulphate		20	<0.1	<0.1
stannic (tin) chloride		20	>1.0	<0.1
stearic acid		20	<0.1	<0.1
sugar beet syrup		20	<0.1	<0.1
sugarcane sap		20	x	x
sulphur		20	0.1 - 1.0	<0.1
sulphur dioxide (dry)		20	>1.0	<0.1
sulphur dioxide (wet)		20	x	<0.1
sulphuric acid	(1%)	100	>1.0	0.1 - 1.0
sulphuric acid	(5%)	20	0.1 - 1.0	<0.1
sulphuric acid	(5%)	boiling point	>1.0	>1.0
sulphuric acid	(10%)	20	>1.0	<0.1
sulphuric acid	(10%)	boiling point	>1.0	>1.0
sulphuric acid	(50%)	20	>1.0	>1.0
sulphuric acid	(70%)	20	>1.0	>1.0
sulphuric acid	(20-90%)	20-100	>1.0	>1.0
sulphuric acid	(93%)	20	>1.0	>1.0
sulphurous acid	(10%)	20	0.1 - 1.0	<0.1
tan liquor		20	<0.1	<0.1
tannin (tannic acid)		20	<0.1	<0.1
tartanic acid		20	>1.0	0.1 - 1.0
toluene		20	<0.1	<0.1
trichlorethylene		20	<0.1	<0.1
triethylamine		20	<0.1	<0.1
trisodium phosphate		20	<0.1	<0.1
turpentine		20	<0.1	<0.1
urea (carbamide)		20	<0.1	<0.1
urine		20	<0.1	<0.1
vinegar		20	<0.1	<0.1
water ('acid mine')		20	<0.1	<0.1
water (fresh)		20	<0.1	<0.1
water (salt)		20	<0.1	<0.1
whisky		20	<0.1	<0.1
wine		20	<0.1	<0.1
xylene		20	<0.1	<0.1
zinc chloride		20	0.1 - 1.0	0.1 - 1.0
zinc sulphate		20	<0.1	<0.1

Note: Although Alumasc has carefully prepared this data, it is nevertheless recommended that laboratory tests are undertaken for specific site conditions

Stainless Steel Floor Channels

Care & Maintenance

Storage

The Harmer Modular 120 channel system must be stored on a flat level surface away from risk of damage. Stainless Steel channels are not self-supporting; as such should not be stood on pre-installation to avoid damaging the channel edges. It is advised to store the channel lengths with gratings installed, which will also aid in channel installation.

Installation Care

Care should be taken to minimise the build-up of deposits during installation of the Harmer Modular 120 channel system. Wire wool and wire brushes **must not** be used to remove cement spillages, finger prints and other marks which may occur during installation; this will introduce impurities to the Stainless Steel surface and will affect the product longevity. Care must also be taken when storing, erecting and cutting carbon steel products near to stainless steel.

Prior to completion and handover, wash and clean channel and channel components, including gratings, sieves and sediment buckets. See below *cleaning methods*.

Maintenance Considerations

Although a robust material, all grades of Stainless Steel will stain and discolour due to contamination by surface deposits during and post installation. In order to ensure maximum corrosion resistance and hygiene performance is achieved, stainless steel must be cleaned regularly. If surface contamination is suspected during installation, immediately clean to encourage a trouble-free product.
High humidity environments, such as swimming pool changing areas, increase the speed of discolouration and will require maintenance on a more regular basis. Care should be taken when using industrial cleaners, such as bleach and sterilisers. If used incorrectly, industrial cleaners can accelerate corrosion and discolouration on stainless steel surfaces. Aggressive acid solutions must not be used with stainless steel.

Maintenance Schedules

A simple maintenance schedule is required to ensure the surface finish remains to a high standard; this is dependent on application. In instances where the Harmer Modular 120 channel system is used where hygiene is paramount, such as kitchens, wash down the channel system daily to maintain the surface finish of the product. In external applications, a maintenance schedule of four times a year should be adopted.

Cleaning Methods

Harmer Modular 120 is a simple and quick system to clean; compared to similar products manufactured in alternative materials.
Wash with a sponge using soap or mild detergent, diluted in warm water followed by rinsing with clear, cold water. Pressurised jet washers must be avoided to prevent damage to the sealed joint gaskets. To maintain a high surface finish, wipe dry.
For stubborn stains, a proprietary stainless steel or metal cleaner can be used. Follow manufacturers guidelines prior to use of any proprietary cleaner.

Floor Drainage Product Selector

Stainless Steel Floor Outlets

Offer a wider range of standard and compact complete drains available either as a one part or two part drain body, vertical or horizontal outlets with a choice of grating finishes to suit any application type.

Stainless Steel Floor Channels - Made to Order

Harmer Stainless Steel Floor Channels feature high performance standard and slot channel options in a range of widths and with a choice of grating finishes to suit all applications.

Alternative Ranges

Harmer also offer the following ranges:

Cast Iron Floor Outlets - An all new range of drain bodies, from shallow sump to deep sump. Complimented by a wide range of grating & bezel designs available in three connection types to suit all applications.

Aluminium Floor Outlets - Designed for use in interior drainage applications and in all types of flooring. This versatile, fully engineered range is available trapped or untrapped, with a new extensive choice of grating designs.

Shower Outlets - Harmer offers a range of shower outlets in cast iron, aluminium and stainless steel, as well as stainless steel shower channels. More information is available on the Harmer website.

Notes

Notes

HARMER®
BUILDING DRAINAGE

Modular 120

Stainless Steel Floor Channels

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