

LATHAMGRATE™ ARCHITECTURAL GRATES AND FRAMES

Designed and Engineered for Ultimate Performance

The Lathamgrate™ aluminium and brass trench grates and frames are an economical, functional and attractive solution to exterior and interior drainage and ventilation issues.

The serrated texture provides a dynamic yet contemporary appearance that compliments today's and tomorrow's architectural designs. Unlike conventional grating, the serrated 6.5mm T's offer increased pedestrian safety and the narrow 6.5mm spacings ensure the best performance with high heeled traffic. The systems also offer tremendous flow rates for air and water meaning they are suitable for drainage or ventilation applications.

Most of the Lathamgrate™ range is available for trench widths up to 300mm wide as standard. Widths indicated in this catalogue are a guide only and Latham can custom manufacture systems to varying widths.

All Latham Aluminium and Brass Grates have undergone Slip Rating Tests in accordance with AS 4586:2013. Details can be found on page 24.

GENERAL INFORMATION



Lathamgrate™ Series aluminium and brass serrated top trench grates and frames offer many benefits over similar products fabricated from steel, cast iron or plastic. Aluminium Gratings are light weight, attractive and tough.

The grating bars are 6.5mm wide and are spaced at 13mm centres. This combined with the serrated surface helps provide pedestrian safety. The closely spaced bearing bars conceal the hidden welds that hold the systems together, and give them rigidity, whilst the narrow 6.5mm spacing reduces the possibility of high heels being caught between the bars. The closely spaced T's also mean that less debris, such as leaves etc., will get into the drainage system, thus reducing the opportunity for blockages.

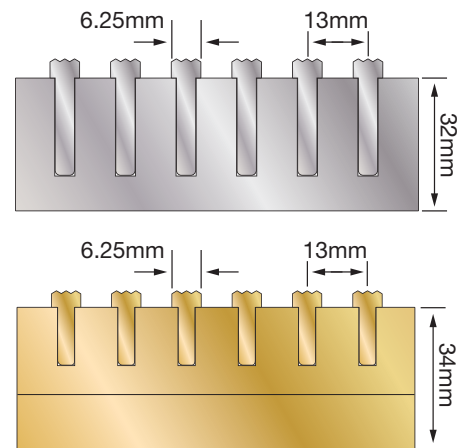
All of the Lathamgrate™ Series listed in this publication carry load class rating information in accordance with AS 3996-2006. It should be noted however that the Standard refers to an excessively large load area in comparison to the size of these grates and as such the load circle in a number of cases comes into contact with the surrounding floor finish, which will give an unrealistic result for the test. Based on this realisation Lathams have listed these systems to what we feel are more acceptable classifications, rather than the tested outcomes which indicate that the systems will carry far heavier loads than they have been designed and engineered for.

In general, the Lathamgrate™ systems are designed for pedestrian applications and as such comply with Class A of AS 3996-2006. Some grates can be supplied for household and light duty commercial driveway type traffic and will comply with AS 3996-2006 Class B and C. See the heavy duty range on page 20.

Testing- The Lathamgrate™ Longitudinal Series have been tested in accordance with AS 4586:2013 Slip Resistant Classification of New Pedestrian Surface Materials. Details of these results can be found on page 24.

Finishes- As standard the Lathamgrate™ systems are supplied in mill finish aluminium or brass. On request aluminium grates can be anodised after manufacture and other finishes can be considered like patination or chroming. Contact Latham

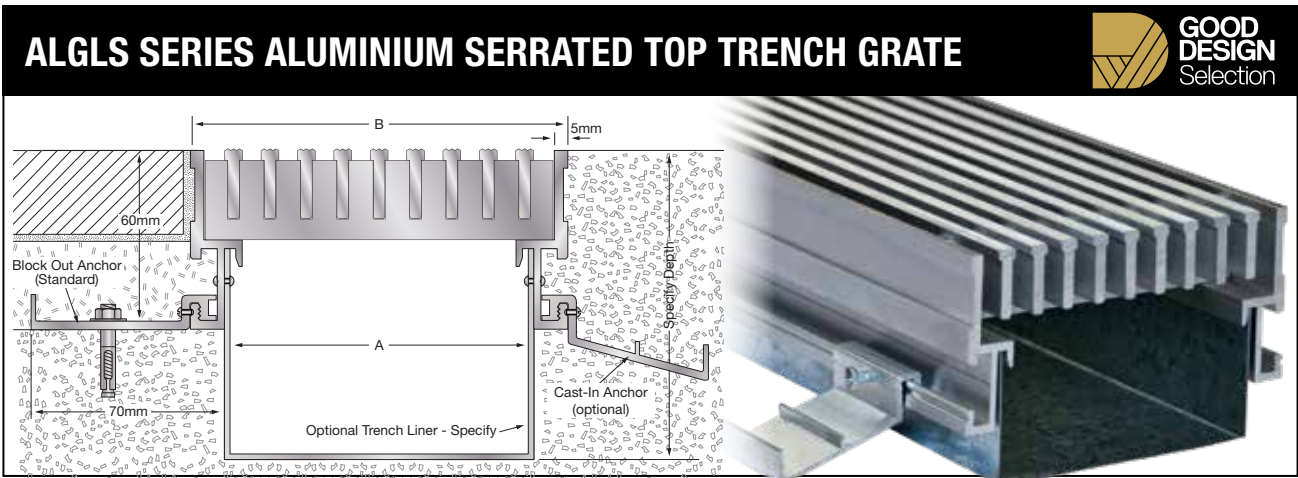
Typical Lathamgrate Aluminium & Brass T Spacing



Australia or your local Latham representative to discuss your requirements further.

Where grates and frames are to be installed in direct sunlight special consideration should be given to the thermal coefficient of linear expansion of the metal, which is about 0.25mm per lineal metre of metal per 10°C in temperature change in the metal (thermal coefficient of lineal expansion for aluminium and brass is quite similar). All grates will be manufactured slightly under frame size to allow for fitting and removal. When grates are being installed in a long continuous run we recommend that 3-5mm gaps be left between each length.

A 3 metre grate section subject to a 50°C surface temperature change from the middle of winter to the middle of summer would be expected to expand over the 3 metre length by approximately 3.75mm. Consideration should be given particularly in external applications.



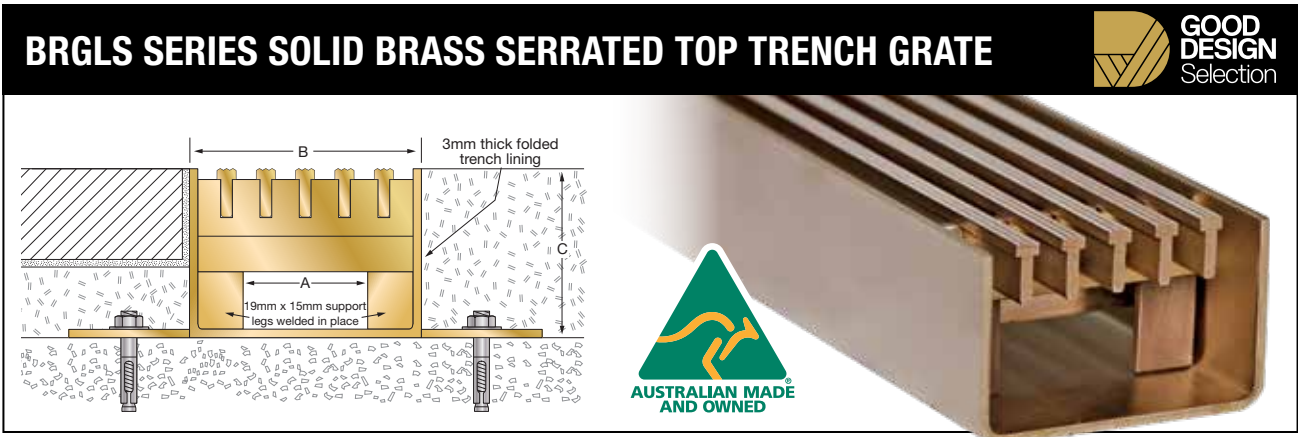
The ALGLS Series Serrated Top Aluminium Trench Grates

are designed predominantly for pedestrian applications. They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, showrooms, arenas, stadiums, exhibition and convention centres etc. The ALGLS Series consists of a frame that can be supplied with or without an integrated galvanised trench liner, making the frame and liner [if supplied] a permanent part of the floor, whilst the individual grating sections will drop into the frame, ensuring easy removal for access and cleaning.

Aluminium Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
ALGLS-4S	80mm	110mm	480	B	7
ALGLS-5S	105mm	135mm	600	B	9
ALGLS-6S	130mm	165mm	720	A	11
ALGLS-8S	180mm	215mm	960	A	15
ALGLS-10S	230mm	267mm	1200	A	19
ALGLS-12S	280mm	306mm	1380	A	22

The ALGLS Series Grates and Frames can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available for the grates, frames and trench liners if required.

On request, the system is also available with block ends for the frames and trench liners. When the trench liner is used and factory fabricated block ends installed, the system will be an enclosed trough. Latham can also supply hidden locking mechanisms for the ALGLS Series Grate and/or welded spigots on the trench liner if required. See pages 22-23 for further details.



The BRGLS Series Serrated Top Solid Brass Trench Grates

are designed predominantly for pedestrian applications. They are commonly

used in office building entrances, homes, parks, recreational harbour or beach foreshores, casinos, convention centres, exhibition centres, schools, hospitals, hotels etc. The BRGLS Series serrated top solid brass trench grates are designed for recessed applications and should be installed to finish flush with the surrounding floor finishes.

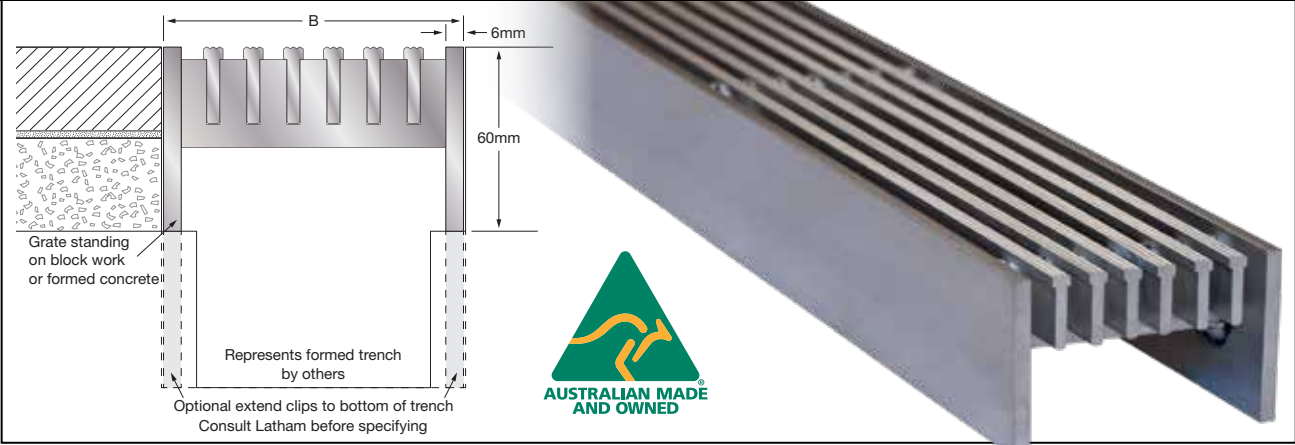
Brass Serrated Top	A	B	C	Open Flow Area per lineal metre of grate (cm²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
BRGLS-3S	42mm	82mm	56mm	360	A	5
BRGLS-4S	68mm	108mm	56mm	480	A	7
BRGLS-5S	82mm	123mm	56mm	540	A	8
BRGLS-6S	105mm	145mm	56mm	660	A	10

The BRGLS Series have folded 3mm brass trench liners with an overall depth of 56mm. The grate is raised off the base of the trench by 19mm high x 15mm wide welded flanges fixed to the bearing cross supports, allowing for clear water flow under the grate structure. The trench frames are supplied with welded brass strap anchors at approximately 350mm centres (fixings by others). The solid brass self-supporting trench liner is supplied in lengths of 1800mm, complete with joining flanges for running longer lengths. The grate insert sections will be supplied in custom lengths up to 4000mm and simply drop in position.

If required, factory manufactured fully welded angles and T's are available for the grates and liners. The system is also available with block ends for the frame and trench. When the trench liner is used and factory fabricated block ends installed, the system will be an enclosed trough. Lathams can supply the BRGLS Series with welded spigots for the trench liner. See pages 22-23 for further details.



ALGPL SERIES ALUMINIUM SERRATED TOP TRENCH GRATE



The **ALGPL Series Serrated Top Aluminium Trench Grates** are predominantly suitable for pedestrian applications such as residential and commercial towers, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, car showrooms, exhibition centres, arenas and stadiums etc.

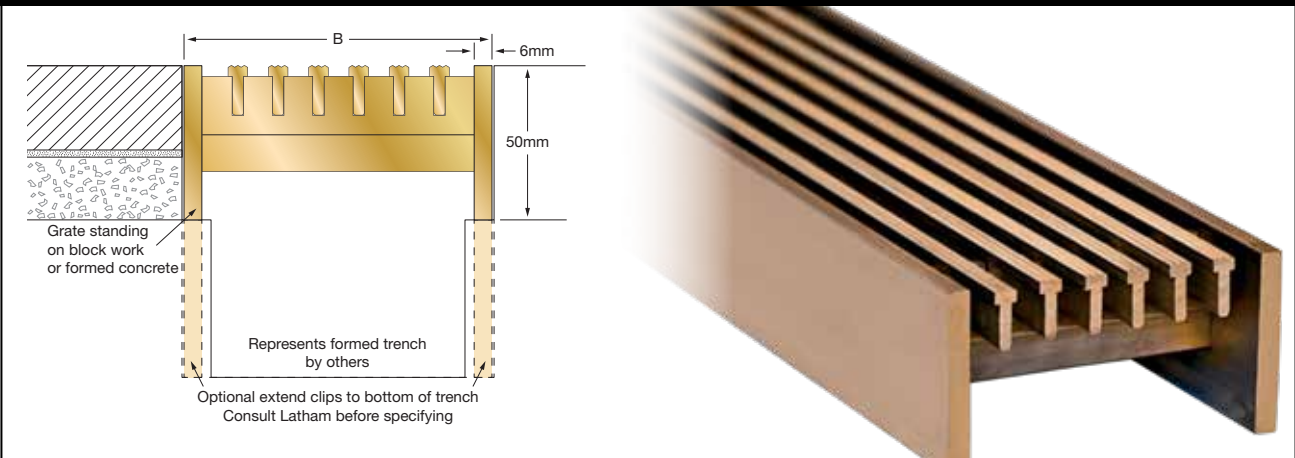
The ALGPL Series are removable solid grate units. They are designed to sit on a formed step or trench base and have an overall depth of 60mm. Alternatively, they can sit on levelling rods in the slab, but they must be fully supported at the ends to ensure they do not lift when traffic passes over a joint in an extended run.

They carry seamless welded cross supports at approximately 300mm centres.

The grates can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available. See pages 22-23 for further details.

Aluminium Serrated Top	B	Open Flow Area per lineal metre of grate (cm²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
ALGPL-3S	75mm	300	B	4
ALGPL-4S	100mm	420	B	6
ALGPL-5S	125mm	540	B	8
ALGPL-6S	151mm	660	A	10
ALGPL-8S	204mm	900	A	14
ALGLS-10S	242mm	1080	A	17
ALGLS-12S	308mm	1380	A	22

BRGPL SERIES SOLID BRASS SERRATED TOP TRENCH GRATE



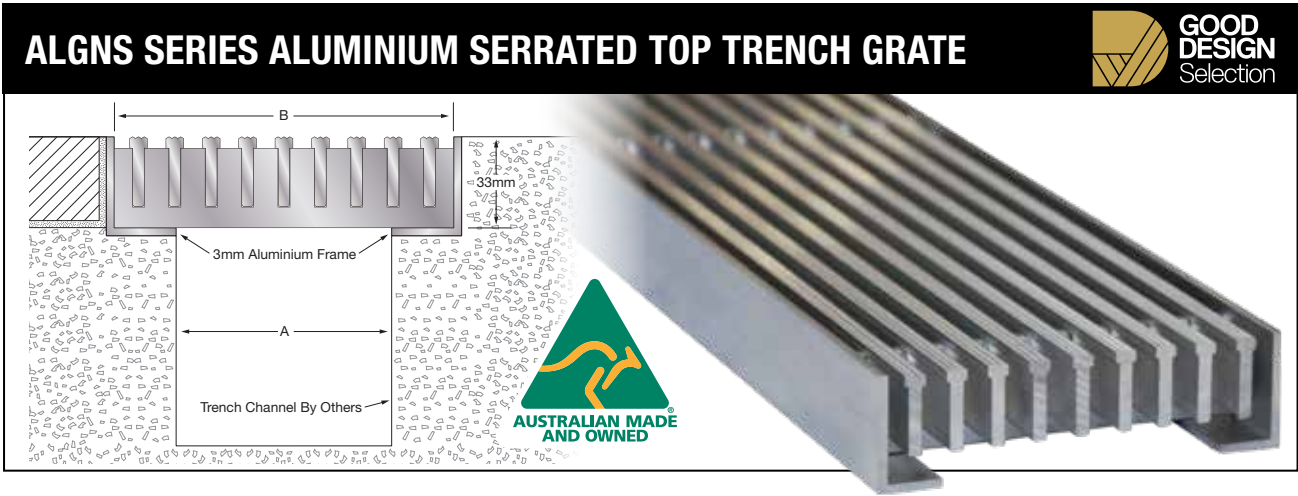
The **BRGPL Series Serrated Top Solid Brass Trench Grates** are predominantly suitable for pedestrian applications, such as residential and commercial towers, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, showrooms, arenas and stadiums etc.

The BRGPL Series are removable solid grate units. They are designed to sit on a formed step or trench base and have an overall depth of 50mm. Alternatively, they can sit on levelling rods in the slab, but they must be fully supported at the ends to ensure they do not lift when traffic passes over a joint. They carry seamless welded cross supports at approximately 300mm centres.

The grates can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available. See pages 22-23 for further details.

Brass Serrated Top	B	Open Flow Area per lineal metre of grate (cm²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
BRGPL-3S	75mm	300	B	4
BRGPL-4S	100mm	420	B	6
BRGPL-5S	125mm	540	B	8
BRGPL-6S	151mm	660	A	10
BRGPL-8S	204mm	900	A	14

Designs and specifications subject to change without notice



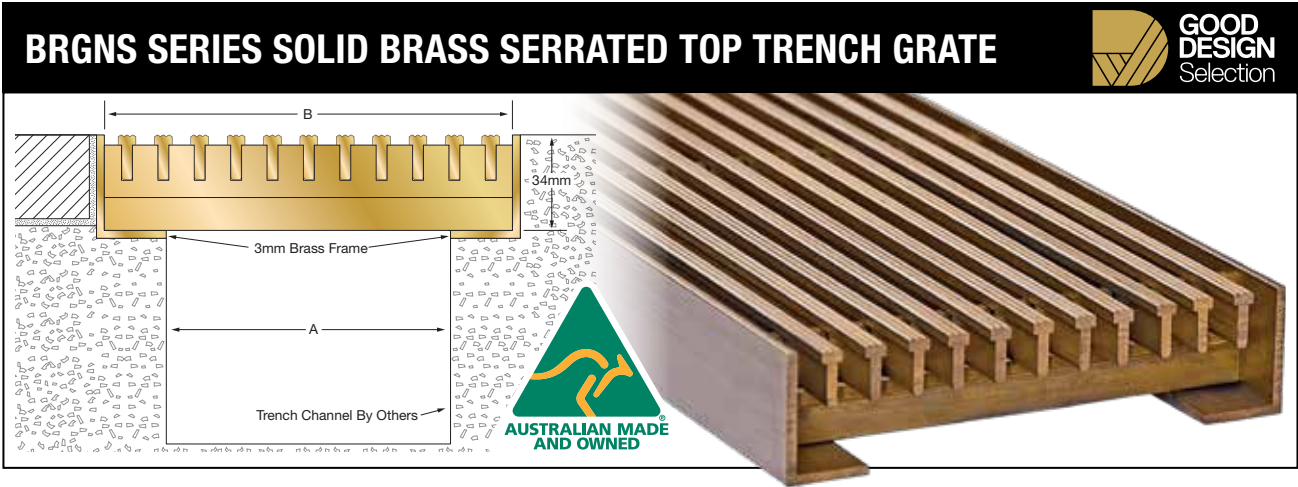
The ALGNS Series Serrated Top Aluminium Trench Grates are for pedestrian applications.

They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, casinos, convention centres, exhibition centres, schools, hospitals, hotels etc. They are designed to sit over a preformed trench and require a 36mm deep x 25mm wide bearing platform on each side of the trench. The 3mm narrow view aluminium frame is mechanically fixed to the bearing platforms and the edge of the frame and grate should finish level with the surrounding floor finish.

The ALGNS Series are used in a range of applications both internally and externally. The ALGNS Series is supplied with the frame that is set on a preformed bearing platforms. The grates will simply drop into the frame making for easy removal for access and cleaning.

The material can be supplied in custom lengths up to 4000mm for the grate inserts, whilst the aluminium angle frame can be supplied in lengths up to 3600mm and factory manufactured fully welded angles and T's are available as well as hidden locking mechanisms. The system is also available with end frame surrounds. See pages 22-23 for further details.

Aluminium Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
ALGNS-4S	56mm	100mm	480	B	7
ALGNS-5S	83mm	127mm	600	A	9
ALGNS-6S	108mm	152mm	720	A	11
ALGNS-8S	148mm	192mm	900	A	14
ALGNS-10S	200mm	244mm	1140	A	18
ALGNS-12S	251mm	295mm	1380	A	22



The BRGNS Series Serrated Top Solid Brass Trench Grates are for pedestrian applications.

They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, casinos, convention centres, exhibition centres, schools, hospitals, hotels etc. They are designed to sit over a preformed trench and require a 36mm deep x 25mm wide bearing platform on each side of the trench. The 3mm narrow view brass frame is mechanically fixed to the bearing platforms and the edge of the frame and grate should finish level with the surrounding floor finish.

The BRGNS Series are used in a range of applications both internally and externally.

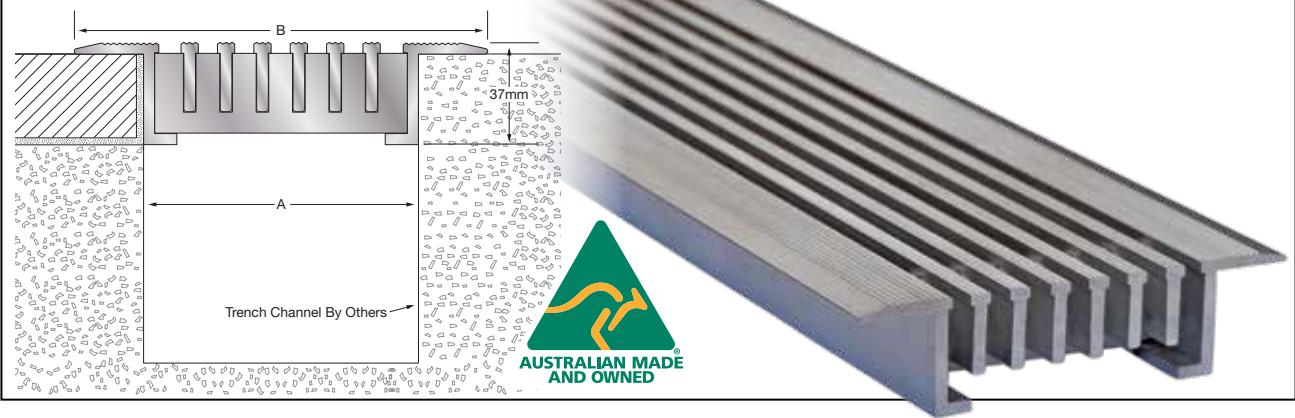
The BRGNS Series is supplied with the frame that is set on a preformed bearing platforms. The grates will simply drop into the frame making for easy removal for access and cleaning.

The material can be supplied in custom lengths up to 4000mm for the grate inserts whilst the aluminium angle frame can be supplied in lengths up to 3600mm. Factory manufactured fully welded angles and T's are available as well as hidden locking mechanisms. The system is also available with end frame surrounds. See pages 22-23 for further details.

Brass Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
BRGNS-4S	56mm	100mm	480	A	7
BRGNS-5S	83mm	127mm	600	A	9
BRGNS-6S	108mm	152mm	720	A	11
BRGNS-8S	148mm	192mm	900	A	14



ALGRS SERIES ALUMINIUM SERRATED TOP TRENCH GRATE



ALGRS Series Serrated Top Aluminium Trench Grates are designed for surface mounted pedestrian applications. They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, showrooms, arenas and stadiums etc.

They are also commonly used for ventilation applications, such as floor AC vent covers or as access covers to floor under deck areas that require aesthetically pleasing and trafficable solutions.

The ALGRS Series is supplied as a complete drop in unit system. It is self-supporting on the surround frames, making for easy removal for access and cleaning. The material can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available for the surface mounted grate if required. The system is also available with end frame surrounds. See pages 22-23 for further details.

Aluminium Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
ALGRS-3S	72mm	120mm	300	A	4
ALGRS-4S	97mm	145mm	420	A	6
ALGRS-5S	122mm	170mm	540	A	8
ALGRS-6S	147mm	195mm	660	A	10
ALGRS-8S	197mm	245mm	900	A	14
ALGRS-10S	249mm	295mm	1140	A	18
ALGRS-12S	297mm	345mm	1320	A	21

BRGRS SERIES SOLID BRASS SERRATED TOP TRENCH GRATE



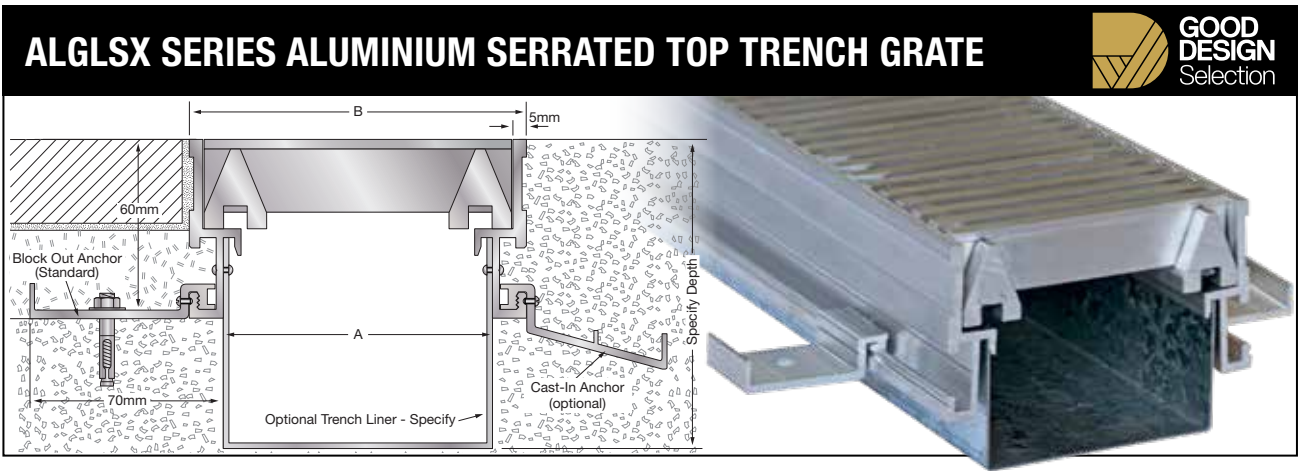
The BRGRS Series Serrated Top Solid Brass Trench Grates are designed for surface mounted pedestrian applications. They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, showrooms, arenas and stadiums etc. They are also commonly used for ventilation applications, such as floor AC vent covers or as access covers to floor under deck areas that require aesthetically pleasing and trafficable solutions.

The BRGRS Series is supplied as a complete drop in unit system. It is self-supporting on the surround frames, making for easy removal for access and cleaning.

The material can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available for the surface mounted grate if required. The system is also available with end frame surrounds.

See pages 22-23 for further details.

Brass Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
BRGRS-3S	72mm	120mm	300	A	4
BRGRS-4S	97mm	145mm	420	A	6
BRGRS-5S	122mm	170mm	540	A	8
BRGRS-6S	147mm	195mm	660	A	10
BRGRS-8S	197mm	245mm	900	A	14



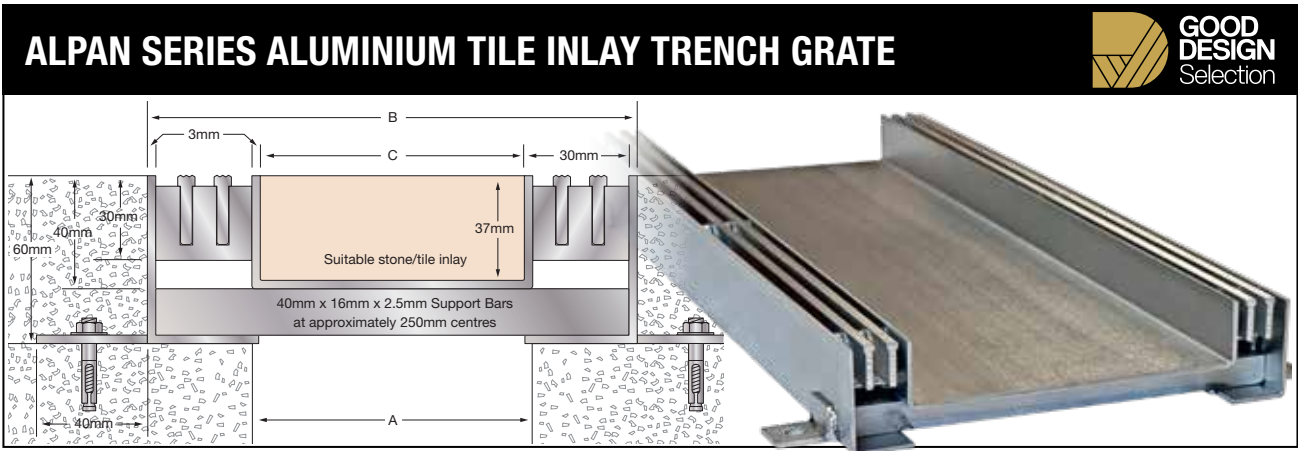
The ALGLSX Series Serrated Top Cross Longitudinal Aluminium Trench Grates are designed for pedestrian applications. They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, residential and commercial towers, showrooms, arenas and stadiums etc.

The ALGLSX Series cross longitudinal serrated top aluminium trench grates have the serrated T's running across the trench width and are suitable for light duty applications. The ALGLSX cross longitudinal serrated top aluminium trench grate sections are supplied in custom lengths to 1000mm, but when butted together in the ALGLSX frame the joints are virtually invisible.

The ALGLSX Series consists of a frame that can be supplied with or without an integrated galvanised trench liner, making the frame and liner (if supplied) a permanent part of the floor. The individual grating sections, which are supplied in 1000mm lengths, will drop into the frame, making for easy removal for access and cleaning.

Factory manufactured fully welded angles and T's are available for the grates liners if required, but not available for the grate insert in the ALGLSX Series. The system is also available with block ends for the frame and trench on request. When the trench liner is used and factory fabricated block ends installed, the system will be an enclosed trough. Latham can also supply hidden locking mechanisms for the ALGLSX Series if required and welded spigots can also be supplied on the trench liner if required. See pages 22-23 for further details.

Care should be taken when handling the ALGLSX grate inserts as these can be easily bent when not in their frames.



The ALPAN Series Tile Inlay Aluminium Trench Grates are designed for pedestrian applications. They are commonly used in office building entrances, homes, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, residential and commercial office towers, showrooms, arenas and stadiums etc.

The ALPAN Series tile inlay aluminium trench grates are designed to accommodate a stone or tile flooring inlay. The series is available with 3mm pan inlay widths of 100mm, 150mm and 200mm.

The pan sits over the formed concrete trench and there is a 32mm wide grate on either side of the pan. The pan depth is 37mm. The grated pan insert is supported on welded integrated cross supports at approximately 250mm centres.

The entire system sits in a custom fabricated T frame with an overall depth of 60mm. The ALPAN Series is supplied in custom lengths up to 2400mm. Factory manufactured fully welded angles and T's are available for the ALPAN Series if required.

The system is also available with welded frame ends and hidden locking mechanisms. See pages 22-23 for further details.



ALBATH & BRBATH BATHROOM SERIES SERRATED TOP TRENCH GRATE

The Latham Grate range has now been extended to incorporate the **ALBATH** and **BRBATH** Series which are specifically designed for bathroom applications. The **ALBATH** Series incorporates fully sealed aluminium trench liners with block ends, whilst the **BRBATH** Series has solid brass trench liners with block ends.

These series are available as standard off the shelf units in the lengths and width detailed below, or in custom lengths. As standard the external trough depth is 50mm which is usually suitable to a floor finish set down in a bathroom. Other depths are available on request.

The systems can be supplied with or without a metal spigot of the same material extending to a depth of 100mm below the base of the trench liner for site cutting to suit. See pages 22-23 for further details.

Finishes - As standard the grates and liners are mill finish aluminium or brass depending on the model selected. On request and for an additional charge the aluminium and brass units can be supplied with a chromed finish or the aluminium sections can be supplied in clear anodised finish.

Stock standard units are available for the **ALBATH-3S**, **ALBATH-4S** in lengths of 1200mm, whilst stock standard units are available for the **BRBATH-3S** and **BRBATH-4S** in lengths of 900mm. Custom lengths can be manufactured on request.



ALBATH BATHROOM SERIES



Aluminium Serrated Top	A	B	C	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
ALBATH-2S	16mm	58mm	50mm	16mm x 15mm	A	3
ALBATH-3S	42mm	82mm	50mm	42mm x 15mm	A	5
ALBATH-4S	68mm	108mm	50mm	68mm x 15mm	A	7
ALBATH-6S	105mm	145mm	50mm	105mm x 15mm	A	10

BRBATH BATHROOM SERIES



Brass Serrated Top	A	B	C	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
BRBATH-2S	16mm	58mm	50mm	16mm x 15mm	A	3
BRBATH-3S	42mm	82mm	50mm	42mm x 15mm	A	5
BRBATH-4S	68mm	108mm	50mm	68mm x 15mm	A	7
BRBATH-6S	105mm	145mm	50mm	105mm x 15mm	A	10

Designs and specifications subject to change without notice



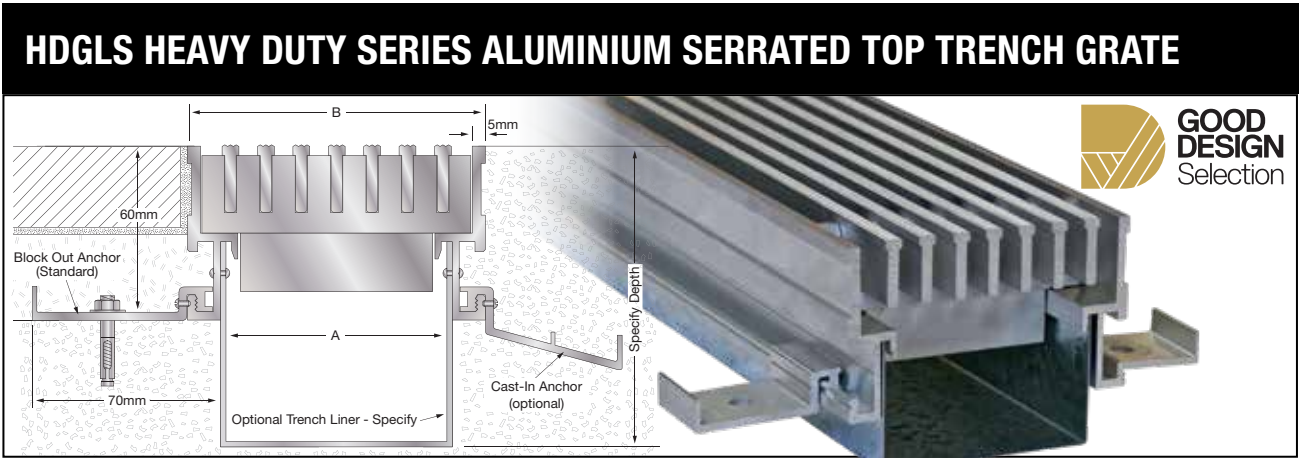
HDGPL Series Serrated Top Aluminium Trench Grates are suitable for vehicular traffic in light duty applications, such as residential driveways, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, car showrooms, arenas and stadiums etc.

They are specifically designed for car and light commercial traffic and, although not considered suitable for public roadway applications, they will accommodate heavier traffic on irregular occasions, such as occasional access for emergency vehicles etc.

The HDGPL is designed for somewhat heavier applications than the standard Lathamgrate™ range. This range has slightly closer spaced cross supports at a maximum of 200mm centres and the cross support is of heavier construction, although this is unnoticeable when the grates are in application.

The HDGPL Series are removable solid grate units. They are designed to sit on a formed step or trench base and have an overall depth of 60mm. The grates can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available. See pages 22-23 for further details.

Aluminium Serrated Top	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
HDGPL-3S	75mm	300	C	4
HDGPL-4S	100mm	420	C	6
HDGPL-5S	125mm	540	C	8
HDGPL-6S	151mm	660	B	10
HDGPL-8S	204mm	900	B	14

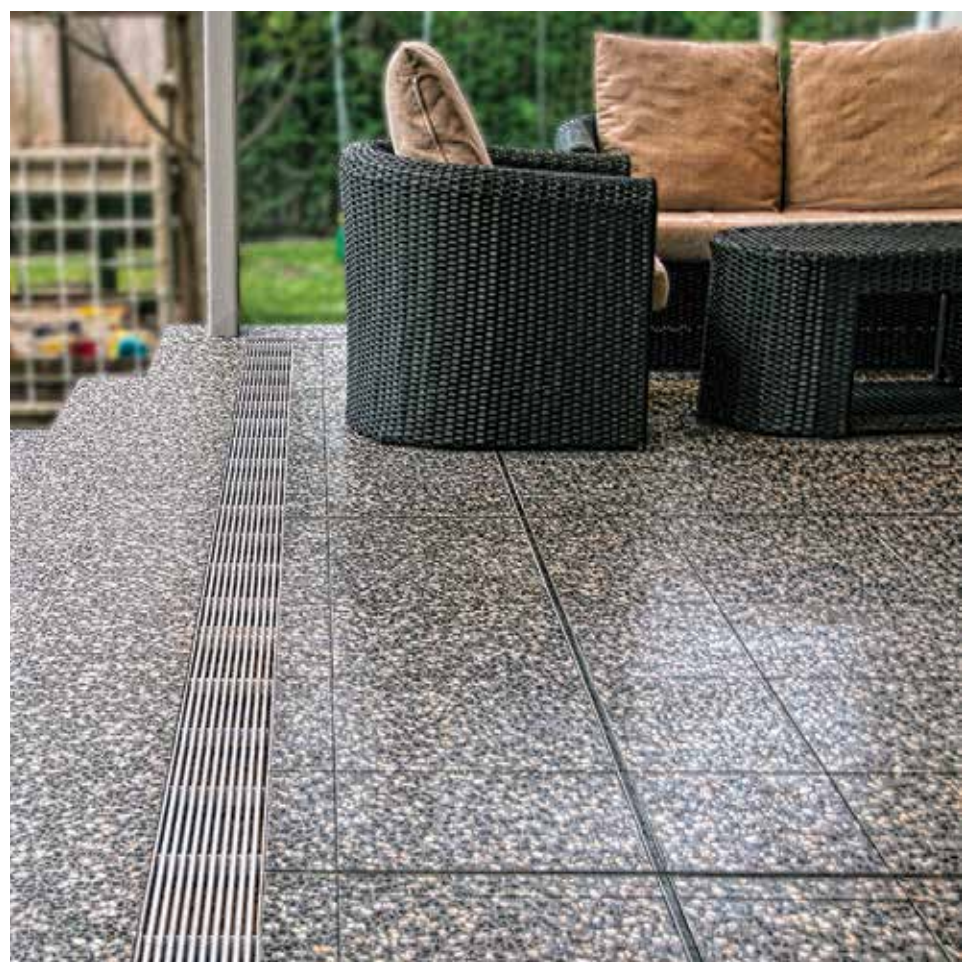


HDGLS Series Serrated Top Aluminium Trench Grates are suitable for vehicular traffic in light duty applications, such as residential driveways, parks, recreational harbour or beach foreshores, schools, hospitals, hotels, car showrooms, arenas and stadiums etc.

They are specifically designed for car and light commercial traffic and, although not considered suitable for public roadway applications, they will accommodate heavier traffic on irregular occasions, such as occasional access for emergency vehicles etc. The HDGLS is designed for somewhat heavier applications than the standard Lathamgrate™ range. This range has slightly closer spaced cross supports at a maximum of 200mm centres and the cross support is of heavier construction, although this is unnoticeable when the grates are in application.

The HDGLS Series consists of a frame that can be supplied with or without an integrated galvanised trench liner, making the frame and liner (if supplied) a permanent part of the floor. The individual grating sections will drop into the frame, making for easy removal for access and cleaning. The material can be supplied in custom lengths up to 4000mm and factory manufactured fully welded angles and T's are available for the grates and liners if required. The system is also available with block ends for the frame and trench if required. When the trench liner is used and factory fabricated block ends installed, the system will be an enclosed trough. Latham can also supply hidden locking mechanisms for the HDGLS Series if required and welded spigots can also be supplied on the trench liner if required. See pages 22-23 for further details.

Aluminium Serrated Top	A	B	Open Flow Area per lineal metre of grate (cm ²)	Class Classification as per AS 3996	Number of 6.5mm Serrated T's
HDGLS-3S	55mm	85mm	360	C	5
HDGLS-4S	80mm	110mm	480	C	7
HDGLS-5S	105mm	135mm	600	B	9
HDGLS-6S	130mm	165mm	720	B	11

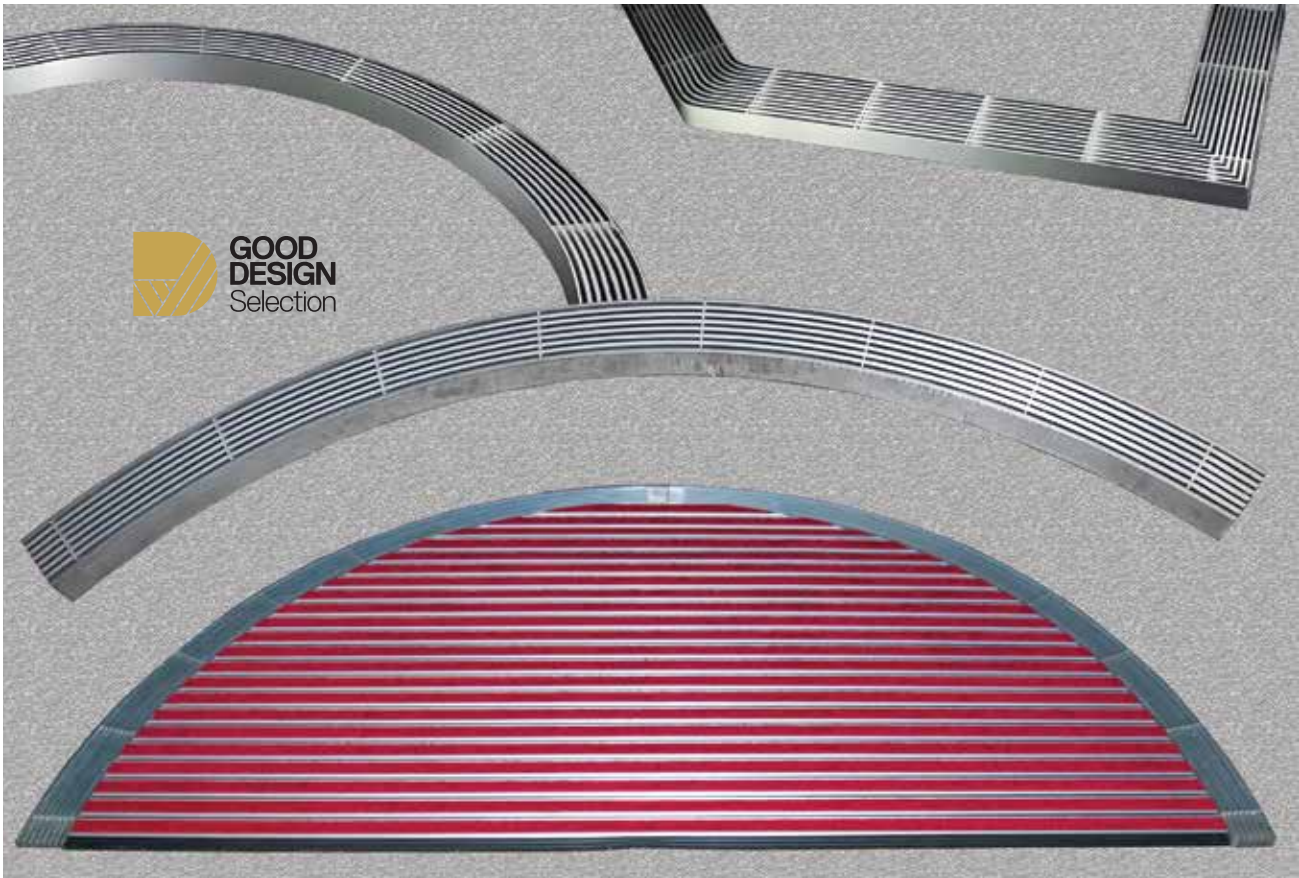




LATHAMGRATE™ CUSTOM FABRICATIONS & OPTIONAL EXTRAS

CURVED FABRICATIONS

Several Lathamgrate™ profiles are suitable for curving. In the aluminium range these include the following series; ALGPL, ALGNS and when the trench liner is not required the ALGLS Series can also be curved. In the brass range, only the BRGPL and BRGNS series are suitable for curving. Curving involves the side sections and the centre T's being rolled to the required curve before the systems are welded together. Depending on the grate series selected, the grates can be rolled to a radius as tight as 900mm. Please contact Latham Australia or your Latham Australia representative to discuss your application further.



T's, L's, ANGLES & CROSSOVERS

All Lathamgrate™ profiles with the exception of the ALGLSX Series can be supplied with factory fabricated and fully welded T's, L's, Angles and Crossovers. Systems that carry a trench liner can also have this fabricated accordingly.



Factory fabricated corner shown in solid brass.



Factory fabricated T shown in aluminium

Designs and specifications subject to change without notice

LATHAMGRATE™ CUSTOM FABRICATIONS & OPTIONAL EXTRAS



FRAME SURROUND ENDS & BLOCK ENDS

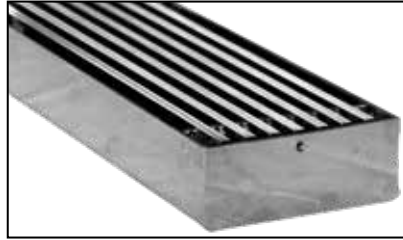


ALGLS Aluminium Series with frame ends (without trench liner).

A number of the Lathamgrate™ Series can be supplied with frame surround ends and block ends. This is when the external edge frame is carried around the end of the grate.

This solution is most commonly considered with the ALGRS, BRGRS, HDGLS, ALPAN, ALGLS, BRGLS, ALGNS and BRGNS Series grates. This option finishes the grates off nicely, and reduces the possibility of trips when surface mounted grates are installed (ALGRS and BRGRS), and where traffic can approach from multiple directions.

A number of the Lathamgrate™ Profiles can be supplied with block ends. The ALBATH and BRBATH Bathroom Series Grates and Liners are supplied with block ends as standard. This results in a removable grate from the aluminium or brass liner which forms the trough. Similarly the ALPAN, ALGLS, ALGLSX and HDGLS Series with galvanised liner and the BRGLS Series with brass liner also can be supplied with block ends to suit the overall required length, once again resulting in a trough.



A number of the Lathamgrate™ Profiles can be supplied with block ends.



ALGRS Aluminium Series with frame ends, shown with special clear anodised finish (available on request). Also available in BRGRS Brass Series.



ALGLS Aluminium Series with surround frame and trench with block ends.



ALGNS Aluminium Series with surround frame. Also available in BRGNS Brass Series.

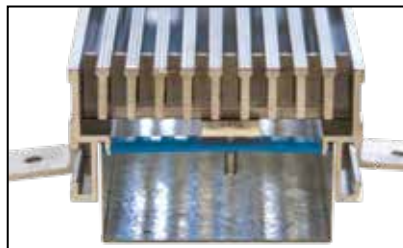


HIDDEN LOCKING MECHANISMS

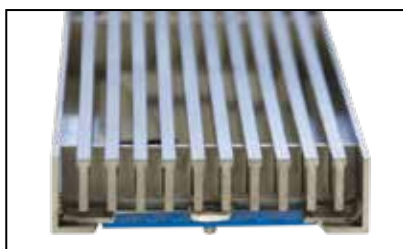
The following Lathamgrate™ ranges can be supplied with hidden locking mechanism, ALGLS, ALGNS, BRGNS, ALGLSX, ALPAN and HDGLS.

As an alternative the ALGRS and BRGRS can be fixed through the side flanges. This option reduces the chance of someone accessing or stealing the grates.

Depending on the profile selected, this would consist of an aluminium or brass plate about 25mm x 12mm being welded to the underside of the grate with a locking bar that is screw fixed through the top of the grate. When the locking bar is tightened the grate insert will be held in place. The ALGRS and BRGRS surface mounted series can be site fixed through the side flanges to reduce the likelihood of theft.



Locking Mechanism 1.



Locking Mechanism 2.

FACTORY WELDED SPIGOTS

On request grates with trench liners can have a factory welded spigot welded into the liner in an appropriate location. The spigot size is dependent on the trench width.





SLIP RESISTANT TESTING LATHAMGRATE™

NATA ACCREDITED INDEPENDENT LABORATORY TESTING

Latham Australia Pty Ltd has had independent testing carried out by a NATA accredited laboratory in Accordance with AS 4586-2013 Slip resistance classification of new pedestrian surface materials - Appendix A

Classification of Pedestrian Surface Materials According to the AS 4586 Wet Pendulum Test

Class	Pendulum SRV (see note 1)	
	Slider 96	Slider 55
P5	>54	>44
P4	45-54	40-44
P3	35-44	35-39
P2	25-34	20-39
P1	12-24	<20
P0	<12	

Notes:

- 1. While slider 96 or slider 55 rubbers may be used, the test report shall specify the rubber that was used.
- 2. It is expected that these surfaces will have greater slip resistance when dry.
- 3. SDV may be calculated by using the tables that are given in Appendix F, and the minimum SRV that is considered appropriate for a level surface (see examples given in Appendix F).

Adapted from AS 4586-2013 Table 2

The established results are detailed as follows:

Latham Serrated Top Aluminium Grates

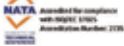
- ▶ Slip Resistance Value (SRV) - Slider 55: 50
- ▶ Classification according to Appendix A: P5

Latham Serrated Top Brass Grates


- ▶ Slip Resistance Value (SRV) - Slider 55: 50
- ▶ Classification according to Appendix A: P5

Australian Standards are available through SAI Global, <http://www.saiglobal.com>, whilst the National Construction Code of Australia is available through the Australian Building Codes Board <http://www.abcb.gov.au>.





Accredited for compliance with AS/NZS 15393 Accreditation Number: 2135



Advanced Technology Testing and Research

REPORT 18/13627.1

20 December 2018

WET PENDULUM SLIP RESISTANCE TEST

Latham Aluminium Serrated Top Grates and Grids

Prepared for:

Adam Latham
Latham Australia Pty Ltd
14 Tennyson Road
GLADESVILLE NSW 2111

Specimen Description:

Latham Aluminium Serrated Top Grates and Grids, 250x250 mm.

No. of Specimens:

5 off (Sampling Conducted by Client)

Specimen Preparation:

Washed with water and pH neutral detergent, rinsed then dried.

Test Condition & Slope:

Unfixed, 0°

Test Direction:

Test conducted parallel with surface profile.

Air Temperature:

21°C

Test Standard:

AS 4586-2013 Slip resistance classification of new pedestrian surface materials, Appendix A - Wet Pendulum Test

Test Location:

ATTAR Unit 1, 64 Bridge Road, Keysborough.

Test Date:

14 December 2018

Test Equipment:

Murre Stanley Pendulum Skid Resistance Tester Serial Number 0320, Calibrated 03/05/2018.

Slider Rubber:

Slider 55 Batch No. #04 prepared on P400 & 3µm lapping film.


Test Personnel:

Date Siegle

Specimen Number	1	2	3	4	5
Mean British Pendulum Number (BPN)	49	52	49	51	49
Slip Resistance Value (SRV)	50				
Classification	P5				

These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance procedures and wear on their slip resistance be checked.

Reviewed By:


Marcus Brachle
Senior Engineering Technician
Approved Signatory


Date Siegle

Compliance and Test Technician


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Advanced Technology Testing and Research

REPORT 18/13627.2

20 December 2018

WET PENDULUM SLIP RESISTANCE TEST

Latham Solid Brass Serrated Top Grates and Grids

Prepared for:

Adam Latham
Latham Australia Pty Ltd
14 Tennyson Road
GLADESVILLE NSW 2111

Specimen Description:

Latham Solid Brass Serrated Top Grates and Grids, 250x250 mm.

No. of Specimens:

5 off (Sampling Conducted by Client)

Specimen Preparation:

Washed with water and pH neutral detergent, rinsed then dried.

Test Condition & Slope:

Unfixed, 0°

Test Direction:

Test conducted parallel with surface profile.

Air Temperature:

21°C

Test Standard:

AS 4586-2013 Slip resistance classification of new pedestrian surface materials, Appendix A - Wet Pendulum Test

Test Location:

ATTAR Unit 1, 64 Bridge Road, Keysborough.

Test Date:

14 December 2018

Test Equipment:

Murre Stanley Pendulum Skid Resistance Tester Serial Number 0320, Calibrated 03/05/2018.

Slider Rubber:

Slider 55 Batch No. #04 prepared on P400 & 3µm lapping film.


Test Personnel:

Date Siegle

Specimen Number	1	2	3	4	5
Mean British Pendulum Number (BPN)	51	50	49	50	48
Slip Resistance Value (SRV)	50				
Classification	P5				

These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance procedures and wear on their slip resistance be checked.

Reviewed By:


Marcus Brachle
Senior Engineering Technician
Approved Signatory

Date Siegle

Compliance and Test Technician

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WLATHAMGRATE™ LOAD CLASSIFICATION AS PER AS 3996-2006



Latham's grates have been tested in accordance with AS 3996-2006. The grading system is compartmentalised into classes A, B, C, D, E, F or G according to the load in the table on the left. The table has been partially extracted from page 11 of AS 3996-2006.

The appropriate class for a cover or grate depends upon the place of installation. Some places of installation, relative to class, are outlined in Table 3.1.

The selection of the appropriate class is the responsibility of the designer and where there is doubt the stronger class shall be selected.

Class	Typical Use	Nominal wheel loading (kg)	Serviceability design load (kN)	Ultimate limit state design load (kN)
A 	Areas (including footways) accessible only to pedestrians and pedal cyclists and closed to other traffic (extra-light duty)	330	6.7	10
B 	Areas (including footways and light tractor paths) accessible to vehicles (excluding commercial vehicles) or livestock (light duty)	2670	53	80
C 	Malls and areas open to slow moving commercial vehicles (medium duty)	5000	100	150

