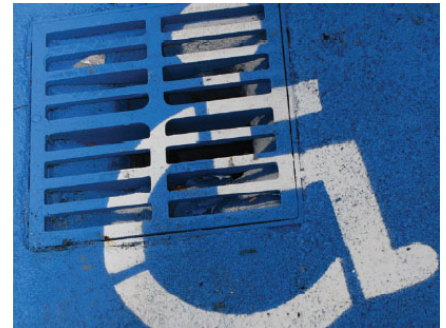


Designing for Access and Mobility

COMPLIANCE FOR WHEELCHAIR AND WALKING CANE SAFETY

New building works must be designed to comply with the Disability Discrimination Act (DDA). The DDA makes it against the law for public places to be inaccessible to people with a disability.

There are many Standards and Guidelines that set out the design requirements for equal access in public spaces for people with a disability. One set of Standards is AS 1428 *Design for access and mobility* which applies to new buildings and renovations of existing buildings.



AS 1428 *Design for access and mobility*, consists of the following parts:

- *Part 1: General requirements for access - New building work*
- *Part 2: Enhanced and additional requirements - Buildings and facilities*
- *Part 4.1: Means to assist the orientation of people with vision impairment - Tactile ground surface indicators*
- *Part 4.2: Means to assist the orientation of people with vision impairment - Wayfinding signs*
- *Part 5: Communication for people who are deaf or hearing impaired*

In public footpaths and walkways, grates are located in areas to intercept, collect and remove runoff to reduce the hazards from surface water causing injuries from slips, trips and falls. Depending on the inlet slot widths and slot orientation, grates can become a hazard for people who use wheelchairs and for people with ambulatory or sensory disability, i.e. trapping wheels/canes in the grate slots.

Bulletin No.: TB202101
Date: 18 January 2022
Issued By: DC

Page 1 of 4 TB202101 - Stone Sans.doc

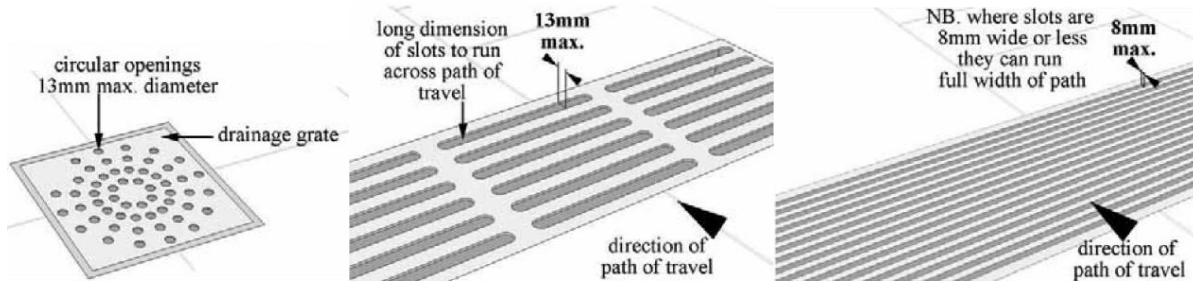


ACO Pty Ltd
134-140 Old Bathurst Road
Emu Plains NSW 2750
Telephone (02) 4747 4000
Facsimile (02) 4747 4040
Email: technical@acoaus.com.au

AS 1428.1:2021 includes, Section 4 *Floor or ground surfaces on continuous accessible paths of travel and circulation spaces*, with Clause 4.4 *Grates* which states the following:

“Grates in paths of travel shall be in accordance with the following:

- (a) Circular openings shall be not greater than 13mm in diameter.
- (b) Slotted openings shall be not greater than 13mm wide and not greater than 150mm long and be oriented so that the long dimension is transverse to the dominant direction of travel.
- (c) Linear openings shall be oriented so that the longer dimension is transverse to the dominant direction of travel, except where linear openings are less than 8mm wide. Where linear openings are less than 8mm wide, orientation is optional.”



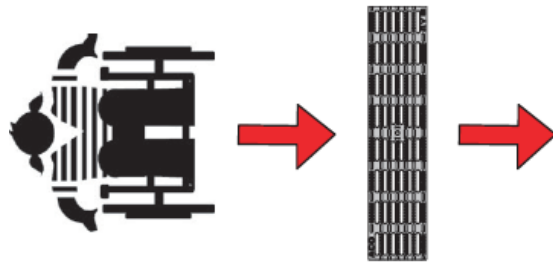
Clause 4.4 (a)
Circular Openings

Clause 4.4 (b)
Slotted Openings

Clause 4.4 (c)
Linear Openings

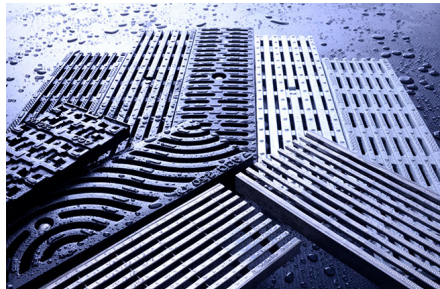
AS 1428.2-2009 contains Clause 9 *Ground and floor surfaces*, with sub-clause (c) *Gratings*, which states:

“If gratings are located in a walking surface, they shall have spaces not more than 13mm wide and not more than 150mm long. If gratings have elongated openings, they shall be placed so that the long dimension is transverse to the dominant direction of travel.”



Note, AS 1428.1:2021 Clause 4.4 (b) is the same as AS 1428.2-2009 Clause 9 (c).

ACO’s Range of Grates



The following tables list ACO’s grates that are wheelchair and walking cane compliant to AS 1428.1 in public footpaths and walkways with consideration of the dominant direction of travel.



If the grates meet AS 1428.1, they are deemed to comply with DDA requirements.

For more information visit, www.acodrain.com.au

Table 1

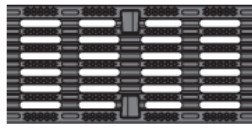
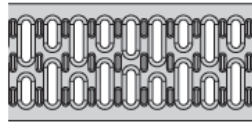
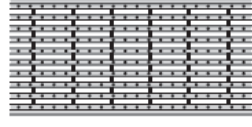
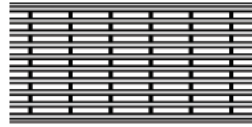
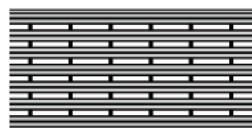
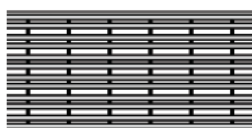
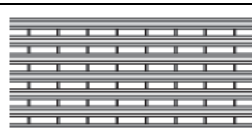
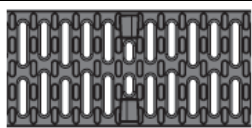
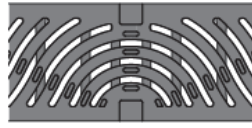
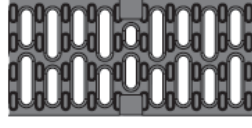
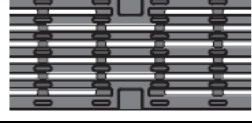

KlassikDrain / SlabDrain HK	Grate Description	Complies to	Compliant Direction	Slot Dimensions	Channel
	Plastic Intercept Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	Dominant direction of travel perpendicular to the grate's length	45mm x 9mm (linear)	K100 / H100K
	Steel Slotted	AS 1428.1 Clause 4.4 (b)	Dominant direction of travel parallel to the grate's length	45mm x 10mm	K100 / H100K
	Stainless Wedgewire Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	38mm x 6mm 40mm x 6mm 19mm x 6mm (linear)	K100 / H100K K200 / H200K K300 / H300K
	Stainless 5 Star Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	38mm x 6mm 40mm x 6mm 19mm x 6mm 38mm x 6mm (linear)	K100 / H100K K200 / H200K K300 / H300K K50
	Stainless Twinwire Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	39mm x 6mm 40mm x 7mm 19mm x 6mm (linear)	K100 / H100K K200 / H200K K300 / H300K
	Stainless Splitwire Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	39mm x 6mm 40mm x 7mm 19mm x 7mm (linear)	K100 / H100K K200 / H200K K300 / H300K
	Galvanised Longitudinal Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (b)	Dominant direction of travel perpendicular to the grate's length	29mm x 8mm	K100 / H100K
	Plastic Slotted Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (b)	Dominant direction of travel parallel to the grate's length	47mm x 8mm	K100 / H100K
	Iron Wave Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (b)	All directions	7mm 7mm 7mm (wave pattern)	K100 / H100K K200 / H200K K300 / H300K
	Iron Slotted	AS 1428.1 Clause 4.4 (b)	Dominant direction of travel parallel to the grate's length	52mm x 12mm 100mm x 12mm 117mm x 12mm	K100 / H100K K200 / H200K K300 / H300K
	Iron Intercept Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	54mm x 6mm 53mm x 6mm 53mm x 6mm (linear)	K100 / H100K K200 / H200K K300 / H300K K50
	Iron Galvanised Intercept Heelsafe® Anti-Slip	AS 1428.1 Clause 4.4 (c)	All directions	54mm x 6mm 53mm x 6mm (linear)	K100 / H100K K200 / H200K K300 / H300K

Table 2



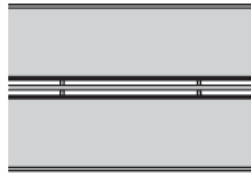
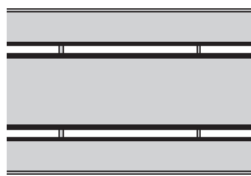
Brickslot	Grate Description	Complies to	Direction	Slot Dimensions	Channel
	Steel Brickslot 100	AS 1428.1 Clause 4.4 (c)	Dominant direction of travel perpendicular to the grate's length	10mm x 310mm (linear)	K100 / H100K
	Steel Double Brickslot 100	AS 1428.1 Clause 4.4 (c)	All directions	8mm x 310mm (linear)	K100 / H100K
	Steel Double Brickslot 200	AS 1428.1 Clause 4.4 (c)	All directions	8mm x 184mm (linear)	K200 / H200K
	Steel Twinslot 200	AS 1428.1 Clause 4.4 (c)	Dominant direction of travel perpendicular to the grate's length	10mm x 184mm (linear)	K200 / H200K

Table 3

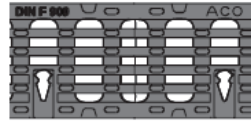
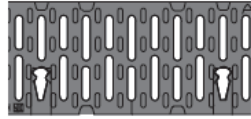
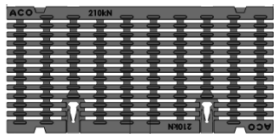
PowerDrain / SlabDrain HSK	Grate Description	Complies to	Direction	Slot Dimensions	Channel
	Iron Intercept Heelsafe ® <i>Anti-Slip</i>	AS 1428.1 Clause 4.4 (c)	All directions	35mm x 6mm 38mm x 6mm 35mm x 6mm (linear)	S100K / H100SK S200K / H200SK S300K / H300SK
	Iron Slotted	AS 1428.1 Clause 4.4 (b)	Dominant direction of travel parallel to the grate's length	52mm x 12mm	S100K / H100SK

Table 4

TraffikDrain	Grate Description	Complies to	Direction	Slot Dimensions	Channel
	Iron Intercept Heelsafe ® <i>Anti-Slip</i>	AS 1428.1 Clause 4.4 (c)	All directions	38mm x 6mm 35mm x 6mm (linear)	TD200 TD300