HEAVY DUTY CHANNEL

Practical Channel Drainage Solutions since 1996

THUNDAFLO™

THRESHOLD & CHANNEL DRAIN SPECIALISTS

Email : info@Thundaflo.com Ph : 021 0708798

WWW.THUNDAFLO.CO.NZ

FEATURES

- Modular System – 3.0L/m sections (0.5 L/m length sections to vary length)
- Independent Positioning System – Installation Savings
- Variable Gradient Channel – High Velocity at Low Flow Rates Mitigates Silting
- Unique Rugged Design – Concrete / Steel Matrix
- Heavy Duty Grating – Ductile Iron & Galvanised Mesh
- Three Nominal Width sizes, 125, 200 & 300mm
- Certified Load Rating of E400 (AS3996), Extra Heavy Duty
- Inline Sumps
- Channel Sections are Easily Joined
- Custom Corner Sections Available

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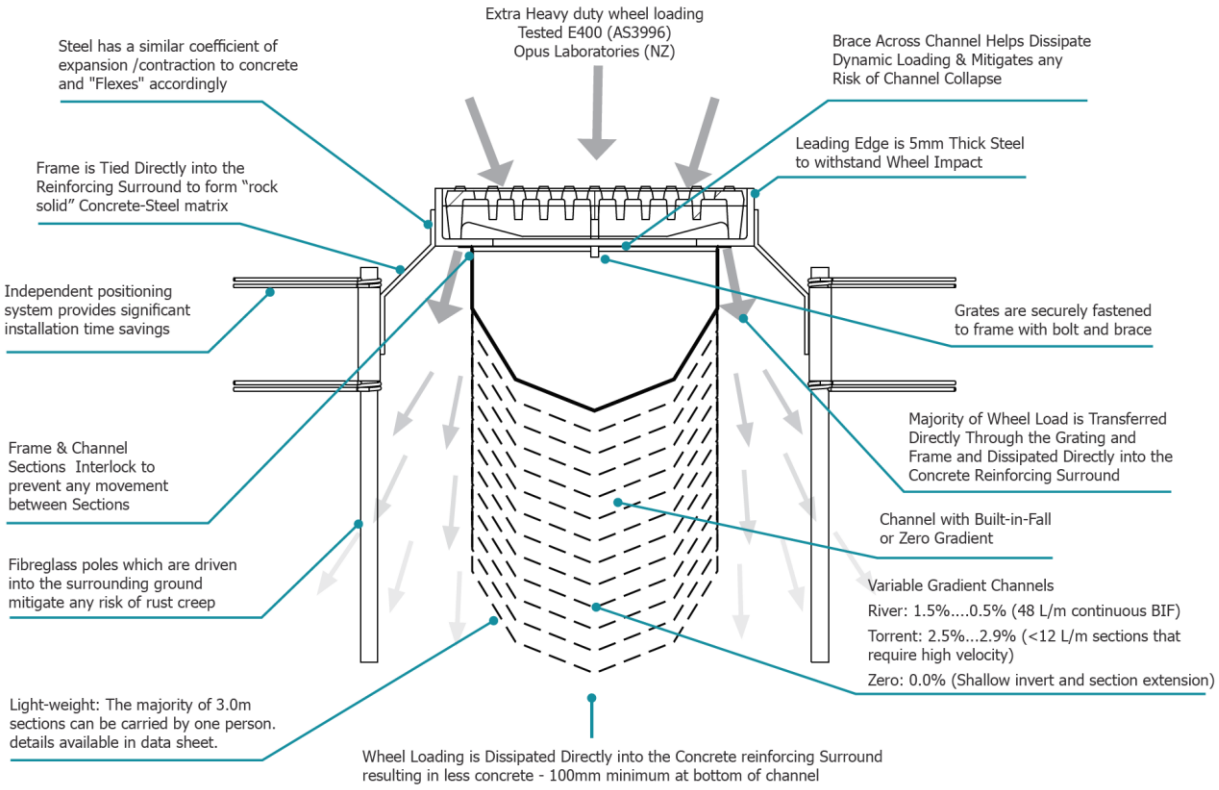
Unique Robust Design



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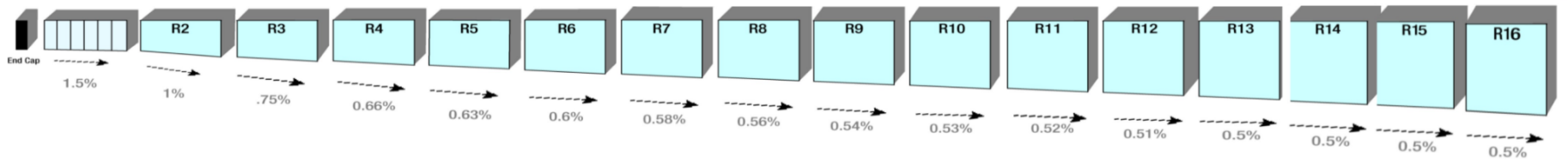
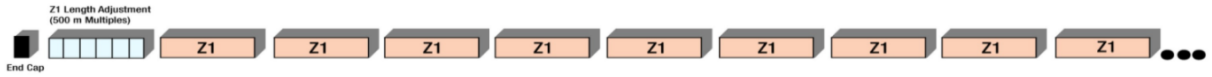
Channel Types : River Gradient (Variable Built-in Fall), Zero Gradient, Torrent (Super Steep Built-in-Fall)

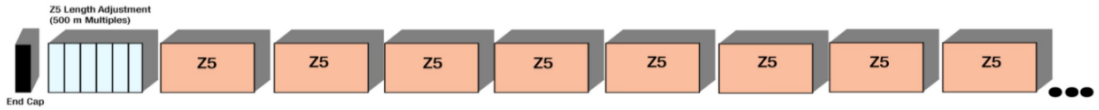
River Channel
Variable Gradient



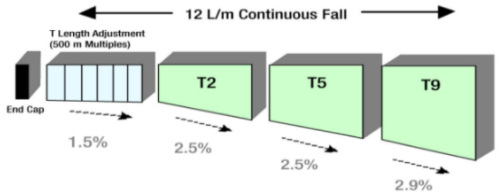
Zero Shallow
Channel



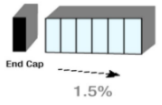
Zero Channel



Torrent Steep
Channel



R1 Section 500mm
Length Adj.



Refer to data sheets for details : inverts, flow rates, velocities
https://www.thundaflo.co.nz/downloads

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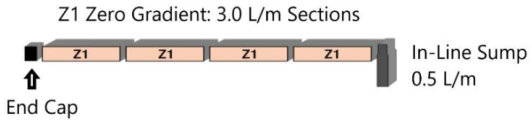
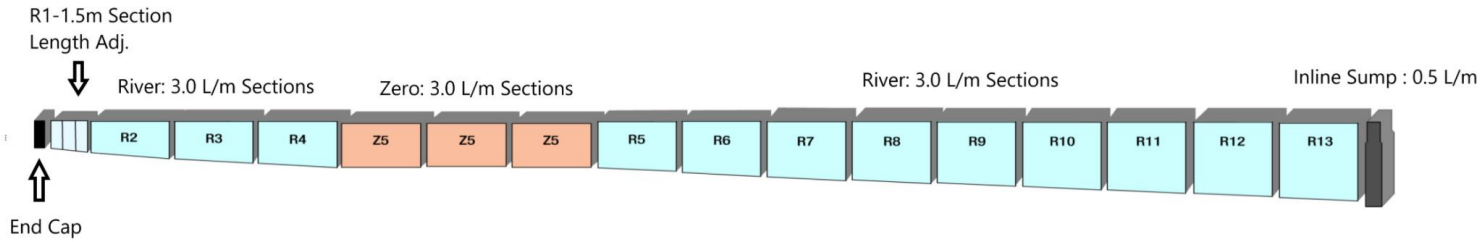
Examples

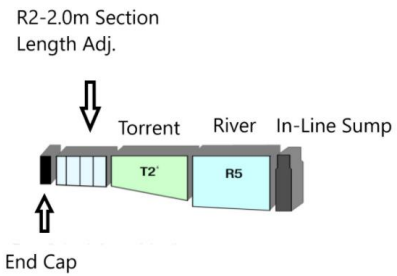
12.5 L/m of Z1



50 L/m: River, Zero & Sump



8.5 L/m: River, Torrent & Sump



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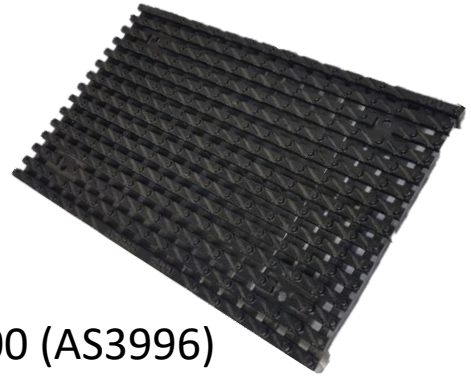
GRATE OPTIONS & INLINE SUMPS

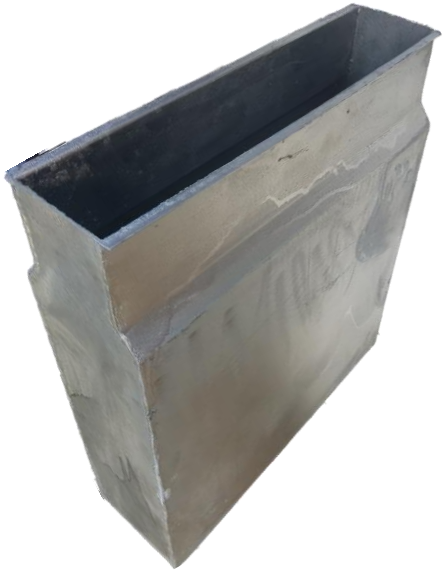
125 Series E400 (AS3996)
Shoe-guard 8mm Slot

200 Series E400 (AS3996)
Shoe-guard (8mm slot)
Cross-flow (12mm slot)



300 Series E400 (AS3996)
Shoe-Guard 8mm slot

Inline Sumps
630-640mm Depth



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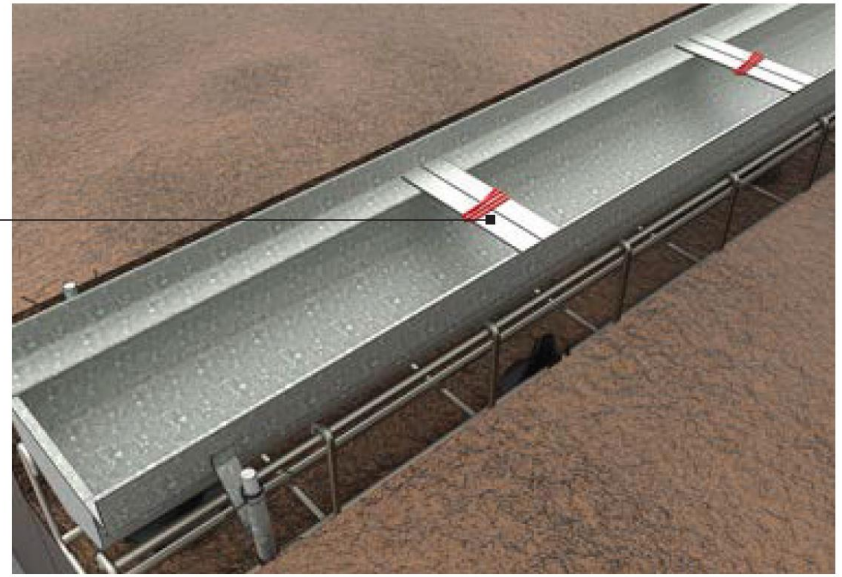
CHANNEL INSTALLATION

Dig Trench and Set Out Reinforcing Cage and Channel Sections

- Trench is dug and reinforcing steel cage is set in position (See installation guide diagram for dimensions of trench and reinforcing steel cage)
- Channel is laid on top of the reinforcing steel cage
- Work from the deep section back to the shallow section
- The fibreglass rods are inserted through the brackets and hammered into the ground on an angle – bottom splayed out (see photo)
- The torsion springs are also attached to the fibreglass rods (one below the bracket and one above the bracket)
- Note, the top torsion spring is positioned at the top of the fibreglass rod while being hammered into the ground to avoid it being splintered

Channel is Raised to Approximate Position

- Each three meter section is raised into approximate position
- Sections are then connected (a tie down strop or tie wire can be used to securely connect the sections during this process – not supplied)
- Note that as each section is raised the splayed fibreglass rods are placed under tension forming a very rigid structure for the concrete pour



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CHANNEL INSTALLATION

Into Position Ready to Pour

- The vertical position of the channel can be adjusted very accurately along the fibreglass rods and securely locked into place with the torsion springs
- The lower torsion spring holds the channel in place while the upper torsion spring prevents float during the concrete pour
- Positioning poles can be easily trimmed with a battery powered grinder if they extend above the height of the channel
- Polystyrene is inserted into the top of the channel to prevent the ingress of wet concrete into the channel during the pour

One Concrete Pour – Two Passes

- One concrete pour in two passes / stages
- Initial stage up to 50mm above the bottom of the channel to “haunch” channel and reinforcing steel
- Second pass / stage to top of channel. Note that wet concrete can be dumped on top of the polystyrene insert to mitigate risk of float during this process. This is important where ground conditions are soft and / or large section channel is being installed

Finished

- Poly infill is removed and grates are inserted and secured in place with bolt and C-nut
- The tested load rating of this ThundaFlo channel drain is E400 (AS3996), extra heavy duty

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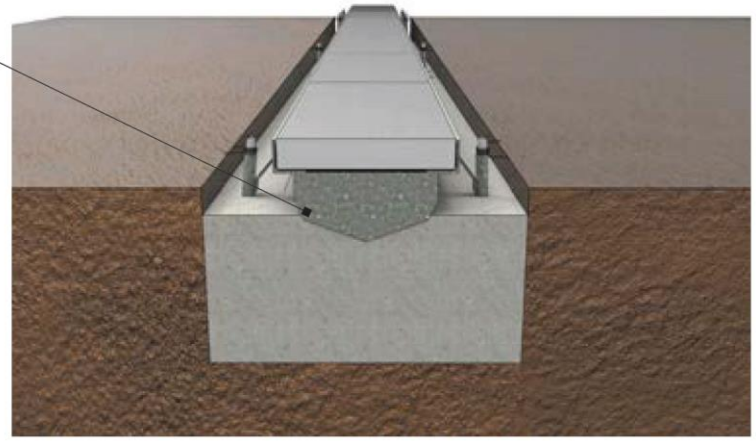
Poly inserts in top of channel to prevent ingress of wet concrete

1st Pass: Concrete is poured to approx. 50mm above bottom of channel



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