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HYDRO-STOP® PVC WATERSTOP

INTERNATIONAL PROFILES

(STANDARD PERFORMANCE GRADE SPECIFICATION)

PRODUCT DESCRIPTION

Hydro-Stop PVC Waterstops lead the way in high technology waterstops and comply with international standards.

Hydro-Stop PVC Waterstops are extruded from specially compounded PVC in accordance with BS2571 and they are designed for use in water retaining and water excluding structures where a positive seal is required for poured in-situ concrete expansion, construction and contraction joints.

Hydro-Stop PVC Waterstops are designed for use in many types of applications and structures, and are available in a number of different size profiles that are for use in construction, contraction or expansion joints.

Hydro-Stop PVC Waterstops are available in rolls with separate intersections supplied to simplify and minimise on-site fabrication. The waterstop is heat weldable and allows for fast and easy on-site welding/joining.

The efficiency of any waterstop is very dependant on good workmanship, installation, and on full compaction of the surrounding concrete around the waterstop during concrete placement. Optimum performance will be achieved if the waterstop is installed by keeping these important factors in mind.

ADVANTAGES

- A full range of profiles and sizes to suit all construction requirements
- Hydro-Stop PVC Waterstops conform to and exceed all major international standards
- High quality compounded PVC for long term durability and integrity
- Factory made intersections to simplify and minimise on-site fabrication
- On-site welding equipment is available upon request
- Internal profiles come with factory pre-punched eyelets for easy and secure wire tying to reinforcement
- Ability to withstand high hydrostatic head pressures

AREAS OF APPLICATION

Water retaining structures:

- Water tanks
- Bund walls
- Sewage treatment plants
- Reservoirs
- Dams and spillways
- Water treatment plants
- Swimming pools

Water excluding structures:

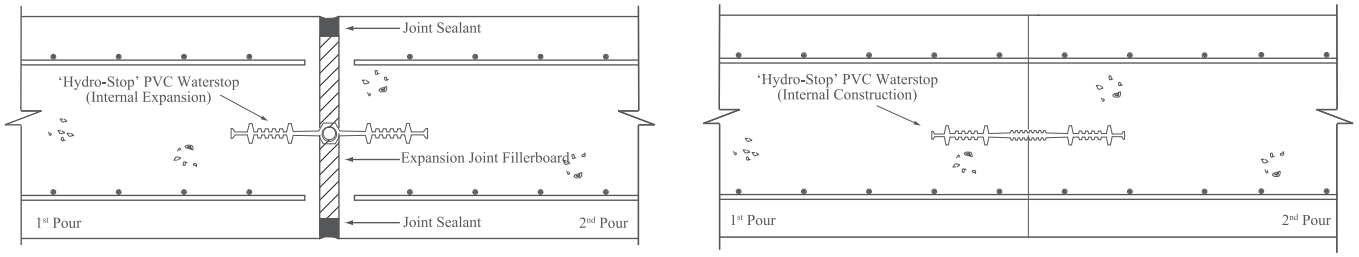
- Basements
- Underground car parks
- Tunnels
- Retaining walls
- Suspended slabs
- Below ground slabs
- Roof slabs

TYPICAL APPLICATIONS

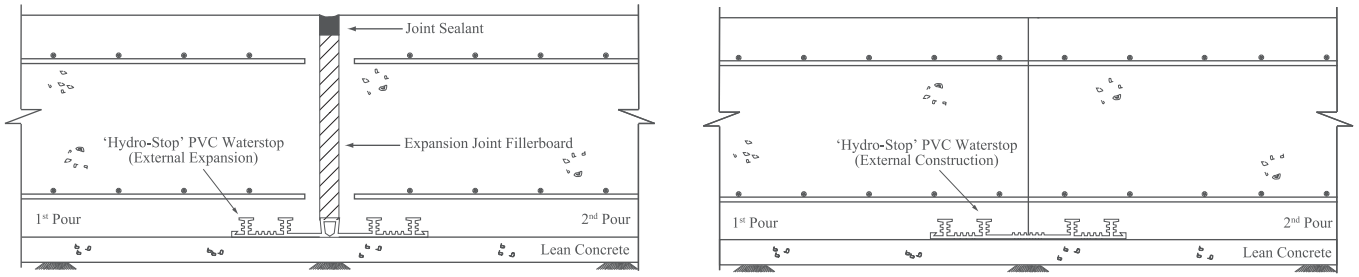
EXPANSION JOINT

CONSTRUCTION JOINT

STANDARD DETAIL OF WALL APLICATIONS



STANDARD DETAIL OF GROUND SLAB APLICATIONS



TECHNICAL FEATURES

COLOUR	Orange
PACKAGING	150mm - 200m = 20m roll, 250mm = 15m roll, 320mm = 12m roll
ROLL WEIGHT	Dependent upon profile type
STORAGE CONDITIONS/SHELF LIFE	5 years from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions out of direct sunlight at temperatures between +10°C and +40°C
MATERIAL TYPE	Polyvinyl Chloride (PVC)
WELDING TEMPERATURE	Approximately 190°C-200°C
SERVICE TEMPERATURE	-25°C to 70°C

PHYSICAL PROPERTIES

PROPERTIES	TEST METHOD	REQUIREMENT	RESULT
1. Tensile Strength (N/mm^2)	BS 2782:320A	Min. 12.00	15.69
2. Elongation At Break (%)	BS 2782:320A	Min. 300	320
3. Loss of Mass Test (mg/cm^2)	BS EN 60811-3-2:1995	N/A	1.69
4. Water Absorption at 23°C (mg)	ISO 62	Max. 1.0	0.19
5. Specific Gravity (g/cm^3)	BS 2782:620B	1.38±0.03	1.41
6. Thermal Stability, Congo Red Test at 180°C, min	BS 2782:130A	N/A	50
7. Hardness, Shore A	BS 2782:365B	75 ± 5 Shore A (BSS 45 ± 10)	75 Shore A (BSS 42)

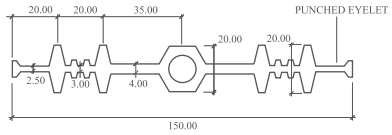
NOTE: The above test results are from an internal certificate of analysis dated 21/11/2016. Project specific material properties can be custom compounded to suit. Material properties can vary between batches.

PROFILE WIDTH SELECTION

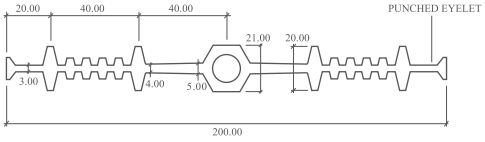
The width of waterstop depends upon the thickness of the concrete and positioning of the reinforcement. The thickness of the concrete should be greater than or equal to the width of the waterstop profile. Refer to your engineer for further clarification and approval.

INTERNAL PROFILES

FOR EXPANSION JOINTS



CJ 951



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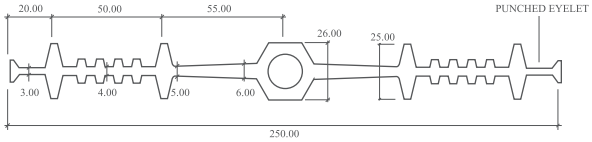

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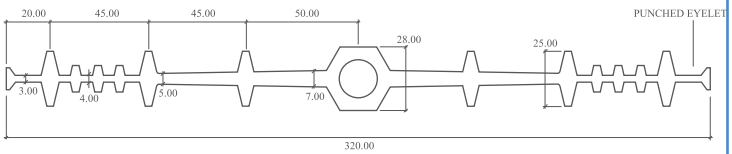

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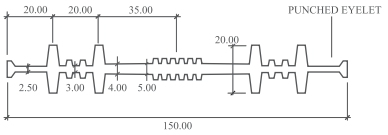
FOR CONSTRUCTION JOINTS



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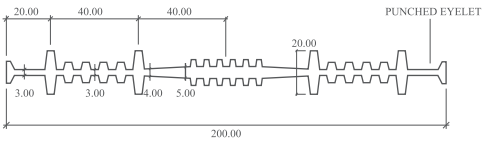

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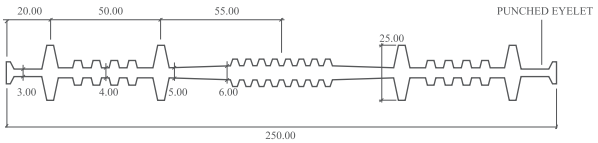

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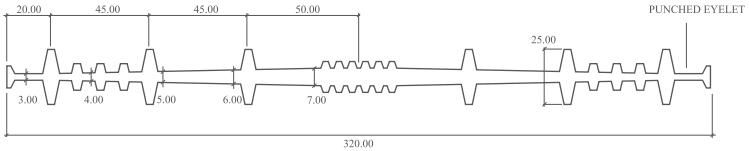

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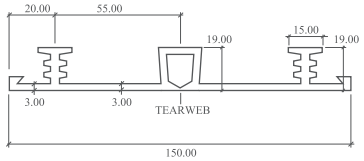
EXTERNAL PROFILES

FOR EXPANSION JOINTS



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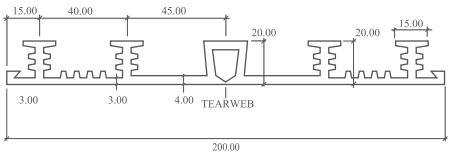

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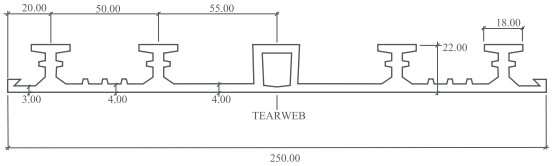

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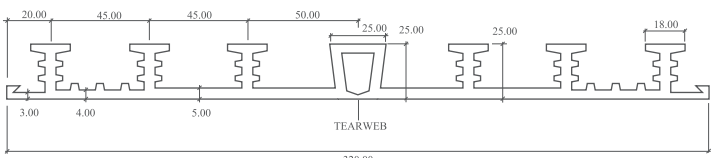

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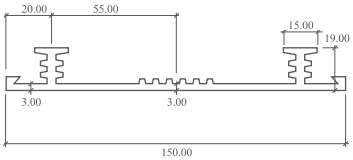
FOR CONSTRUCTION JOINTS



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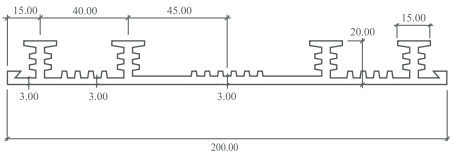

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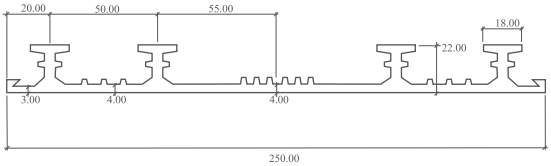

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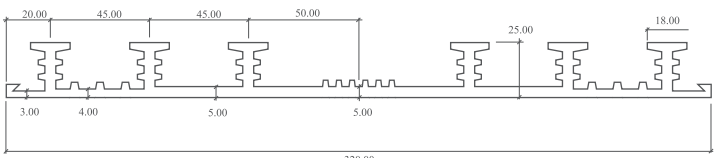

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NOTE: Full dimension drawings available upon request

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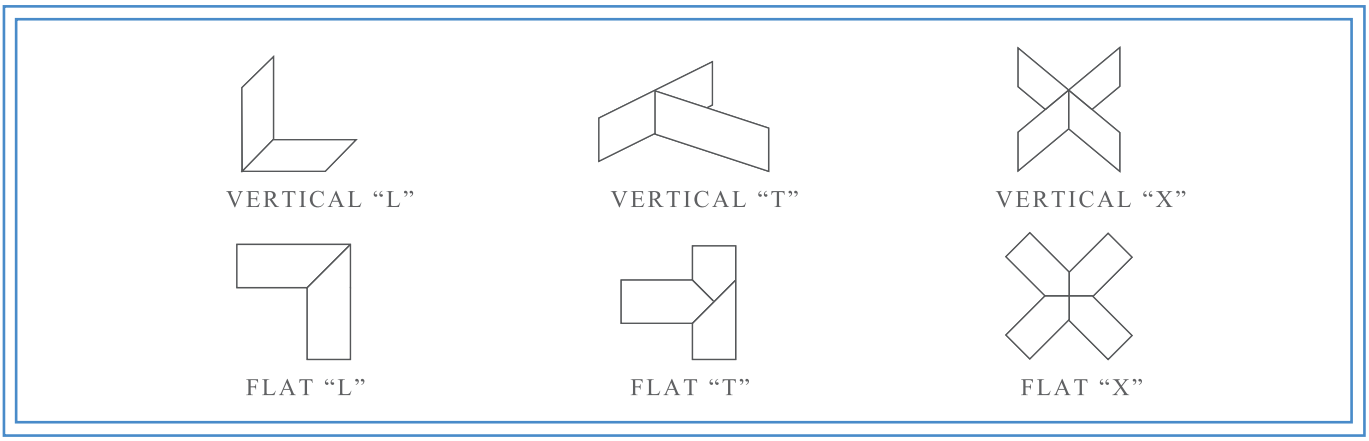
SITE JOINING

AITKEN FREEMAN recommends the use of its specialized welding equipment for on-site welding which consists of thermostatically-controlled welding blades and special welding jigs (each type of Hydro-Stop PVC Waterstop requires its own welding jig to suit the particular shape). On-site joining is a simple exercise using AITKEN FREEMAN Heat Welding Equipment comprising of an adjustable welding jig and welding iron. The ends of the waterstop are cut square and placed into the adjustable jig. The ends of the waterstop then slide up against the welding iron and bring the two ends together until the molten ends of the PVC fuse. When ordering welding equipment, please advise profile number of waterstop required.

FACTORY MADE INTERSECTIONS

A wide range of standardized prefabricated intersection pieces are available allowing easy site welding of butt joints to Hydro-Stop PVC Waterstop junction pieces. Customised pieces can be made to suit, and in such cases, drawings must be provided giving exact dimensions and jointing details.



WRITTEN SPECIFICATION

Where shown on the drawings all PVC waterstops shall be Hydro-Stop (state profile number required) as supplied by AITKEN FREEMAN Provide factory made waterstop fabrications for all changes of direction, intersections and transitions, leaving only straight butt joined splices for on-site fabrication.

HEALTH & SAFETY

Joining of PVC Waterstops is performed by heat welding which results in the discharge of hydrogen chloride mist and vapour. In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator should be used, and the advice and approval of the Site Safety Supervisor is essential. For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Material Safety Data Sheet (MSDS), which is available upon request.

Effective Date: 26 May 2017

AITKEN FREEMAN