

RUBBER WATERSTOP

WATERSTOPS FOR HIGH PERFORMANCE JOINTS

DESCRIPTION:

The chemi tech range of Rubber Waterstops is designed to be cast in as an integral joint sealing system for in-situ concrete, water retaining or excluding structure where maximum performance is required as a result of high movement or hydrostatic head. These joints typically occur in reservoirs, dams and spillways, tunnels and other major civil engineering structures.

ADVANTAGES:

- High degree of elasticity to accommodate pronounced cyclic movement.
- High elongation to cater for subsidence and seismic movement.
- Withstands high water pressure.
- Hot vulcanized site joints.

The principle uses of chemi tech Rubber Waterstop included any of the following structures in circumstances where the joints may be subject to high pressure or pronounced or repeated movements.

Chemi tech offers a comprehensive range of high performance, high quality technical products, manufactured in accordance with a BS 5750 registered quality scheme. In addition, chemi tech offers a technical support package to specifiers, end-users and contractors, as well as on-site technical advice.

Standards Compliance:

Chemi tech Rubber Waterstop complies to BBS 903 Part A2 (1995)

Description:

Chemi tech Rubber Waterstop sections are made from high quality natural rubber compound which has been formulated to give excellent flexibility to used in high movement joints in water retaining and water excluding in-situ concrete structures.

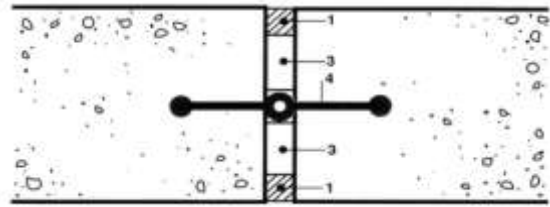
The centre bulb in the Rubber Waterstop profile makes it suitable for subsidence, contraction and expansion joints, including high movement joints.

APPLICATIONS:

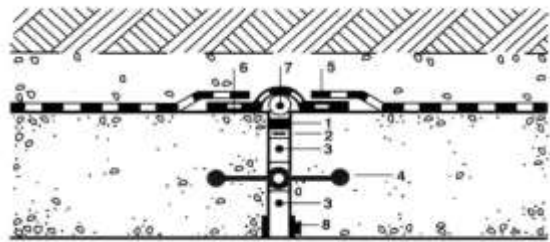
Water retaining structures

Rubber waterstop are recommended for sealing high movement expansion joints. They are particularly recommended for sealing joints subject to high water pressures in such structures as irrigation canals, culverts, dams, reservoirs, sea walls and sewage works.

Example of sealed expansion joints in wall of water retaining structures is shown below:

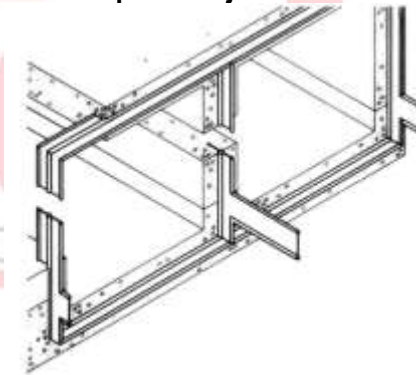


Example of sealed roof joint water retaining structures is shown below:



1. Chemseal PS
2. Bond breaker
3. Self-expanding Cork Filler
4. Rubber Waterstop
5. Slip Membrane
6. Backer Rod
7. PVC Capping Strip

Twin box culvert expansion joint



WATER EXCLUDING SUBSTRUCTURES:

Rubber waterstop are recommended for sealing joints in retaining walls and building basements, particularly where there may be subject to high movement and subsidence.

WATERSTOP SELECTION:

Centrally placed rubber waterstops, i.e. the Dumbell and centre Bulb profiles are designed to be used for most situations applicable to a waterstop system within a performance parameter indicated under the heading "Technical Data". Rubber waterstop are particularly suited in high movement joints and joints in structures liable to subsidence.

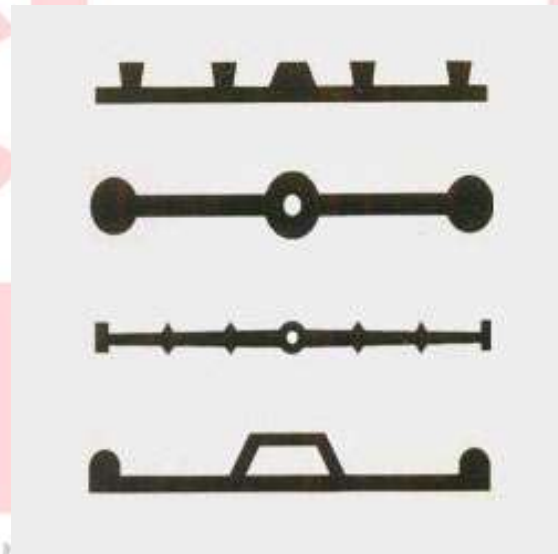
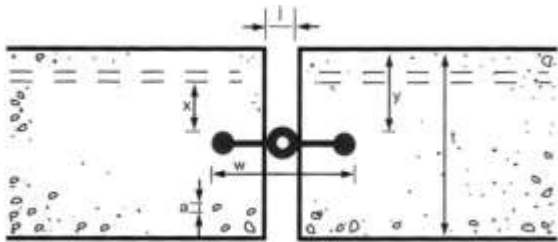
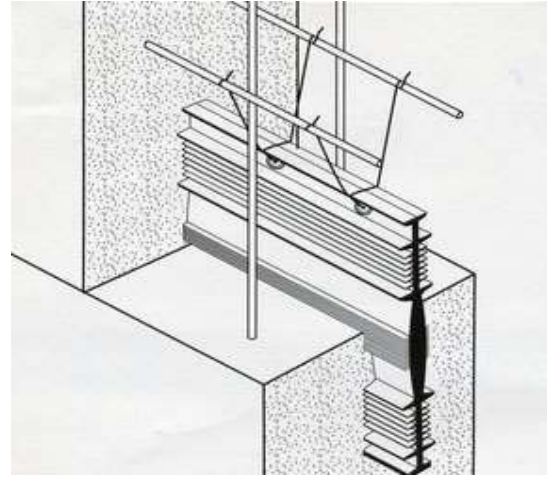
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WATERSTOPS FOR HIGH PERFORMANCE JOINTS

Profiles: Reference to the profile diagram and accompanying description will classify the profile types into application categories. It will be seen that construction joint may be using the Plan Web sections and expansion or high differential movements joints may be sealed using the Centre Bulb profile designed to accommodate cyclic movement.

Size: The appropriate waterstop width depends upon the concrete thickness, the aggregate size and the position on the reinforcement.

1. w not greater than t
2. w not less than $6a+j$
3. y not less than $\frac{1}{2}(w-j)$
4. x not less than $2a$
 $a = x$ not less than $2a$



INSTALLATION:

The Waterstop are to be installed so that they are securely held in their correct position whilst the concrete is placed. The concrete must be fully and properly compacted around the waterstop to ensure that no voids or porous areas remain. Where reinforcement is present, adequate clearances are to be left between this and all waterstops to permit proper compaction of the concrete. No holes are to be made through any waterstop.

Example of Rubber waterstop installation showing split shuttering is shown below:

1. Folding wedges
2. Rubber waterstop
3. Compressible fillerom - RBCF
4. Batten form slot for joint sealing pound.

Site Installation and Jointing

Consult Rubber Waterstop Guides referenced above.

