

HydraSleeve™

No-purge groundwater sampler

The patented HydraSleeve™ no-purge sampler is a discrete interval sampler with a unique one-way reed valve. The sampler remains deflated during installation and only fills when retrieved. The reed valve shuts as soon as the sampler is full enabling a 'core' of water to be sampled over a specific depth interval without mixing.

The HydraSleeve™ is used in place of purging and low-flow sampling methods in groundwater monitoring boreholes to obtain a representative, real time, discrete interval sample of ALL compounds, including VOC's, under natural groundwater flow conditions.



Applications

- Alternative to purging and low-flow sampling methods
- Routine or VOC sampling
- Low-yield boreholes
- Concentration profiling in long-screened boreholes
- Sampling below product interface
- Use in 42mm diameter and larger boreholes

Benefits

- Inexpensive
- Reduces field time – sample in 15 minutes
- Minimal turbidity & disturbance - no mixing
- No aeration, agitation, degassing or displacement
- Smooth and controlled laminar flow during sample retrieval
- No purge water for disposal

Features

- Disposable and simple to use
- Clear for visual inspection
- Small and convenient for portability
- Includes sample discharge tube
- Three sizes available from stock with volumes ranging from 650 ml - 1.6 litres.
- Customised sizes available



Waterra supply a comprehensive range of HydraSleeves and accessories

HydraSleeve™

The HydraSleeve sampler consists of two basic parts — a reusable weight and a long, flexible, lay-flat sample sleeve incorporating a reed valve. The bottom of the flexible sleeve is sealed and the weight is attached to it. The reed valve at the top of the sleeve includes an attachment point for the suspension line.

An optional spring clip is available to simplify the attachment of a suspension line whilst keeping the mouth of the sleeve open for efficient filling during retrieval.

An optional hollow top weight can be used for sampling from 50mm diameter boreholes where water levels are close to the base.

How it works (Refer to fig. 1)

1 - Sampler Placement

A reusable weight is attached and the HydraSleeve then lowered to depth on a cord or wire line. The top of the HydraSleeve should be placed at the lowest point of the targeted depth interval. Water pressure will keep the sleeve collapsed and empty of water. Allow sufficient time for the well to return to equilibrium conditions.

2, 3 and 4 - Sample collection and retrieval

Pull the Hydrasleeve from the borehole. Pull rapidly in one continuous upward movement. The HydraSleeve will fill over an interval of approximately 1.5 times its length.

Alternatively cycle the sampler up and down to fill over a shorter interval. There is minimal change in water level and very little agitation during collection. Once full the sample can be lifted to surface without mixing in the borehole column.

5 - Sample transfer

Samples are removed by puncturing the full Hydrasleeve with a pointed discharge tube (supplied) and draining into sample containers or other field equipment.



Standard deployment

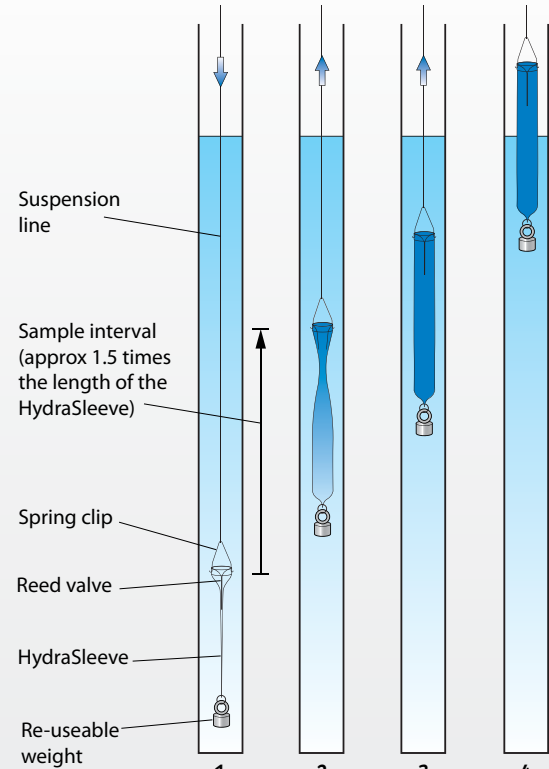


Fig. 1 - Continuous pull using bottom weight

Ordering information

Code Description

HydraSleeve disposable samplers

EHS-SC	HydraSleeve SS spring clip
EHS-110	HydraSleeve S650 (38mm dia x 762mm, 650 ml)
EHS-111	HydraSleeve S1000 (44mm dia x 965mm, 1 litre)
EHS-220	HydraSleeve L1600 (66mm dia x 762mm, 1.6 litres)

Other sizes can be customised to order

Reusable weights

EWT-150R	SS weight 175g with eye and split ring (35mm dia)
EWT-250R	SS weight 275g with eye and split ring (35mm dia)
EWT-500R	SS weight 525g with eye and split ring (35mm dia)
EWT-227H	*SS hollow top weight 227g for HydraSleeve (41mm)

* Only use in 50mm diameter boreholes

Suspension accessories

BC/K35-50	3.5mm dia polyester cord (50m)
BC/K25-300	3.5mm dia polyester cord (300m)
ECR-110	Hand reel (holds 100 metres of 3.5mm dia cord)

Ties for tethering

EHS-SC	Hydrasleeve SS Spring Clip
EWT-CT100	Cable Ties (100mm) Pack 100
ECR-RING	SS Split ring (25mm)

Alternative deployment methods

The diagram below illustrates 3 alternative methods for deploying Hydrasleeves. For further details refer to Hydrasleeve field manual (see website).

