



Water



All it takes for
environmental
research



P2 WATER

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(Ground-) water sampling

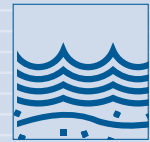
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GROUNDWATER MONITORING PIPES

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P2.01

The quality of soil water monitoring systems depends on many factors. Firstly, only legally permitted materials should be used, as it is known that some existing materials contaminate soil and environment. Secondly, if application of certain materials causes contaminated water samples, the quality of the monitoring system is affected, leading to unsatisfactory analysis results. Thirdly, the quality of a monitoring system is also affected, if insufficient sealings are applied, or if materials cause diffusion of (chemicals in) water, such that water is able to leak from one soil layer to another, or contamination outside the monitoring system is able to penetrate into the monitoring well system.

Our monitoring well consumables have been manufactured using materials that cause no contamination, such as teflon, HDPE or PVC. While teflon is chemically inert, HDPE or PVC products do exist that do not contain metals or organics that contaminate the environment or water samples. Furthermore, special monitoring well products

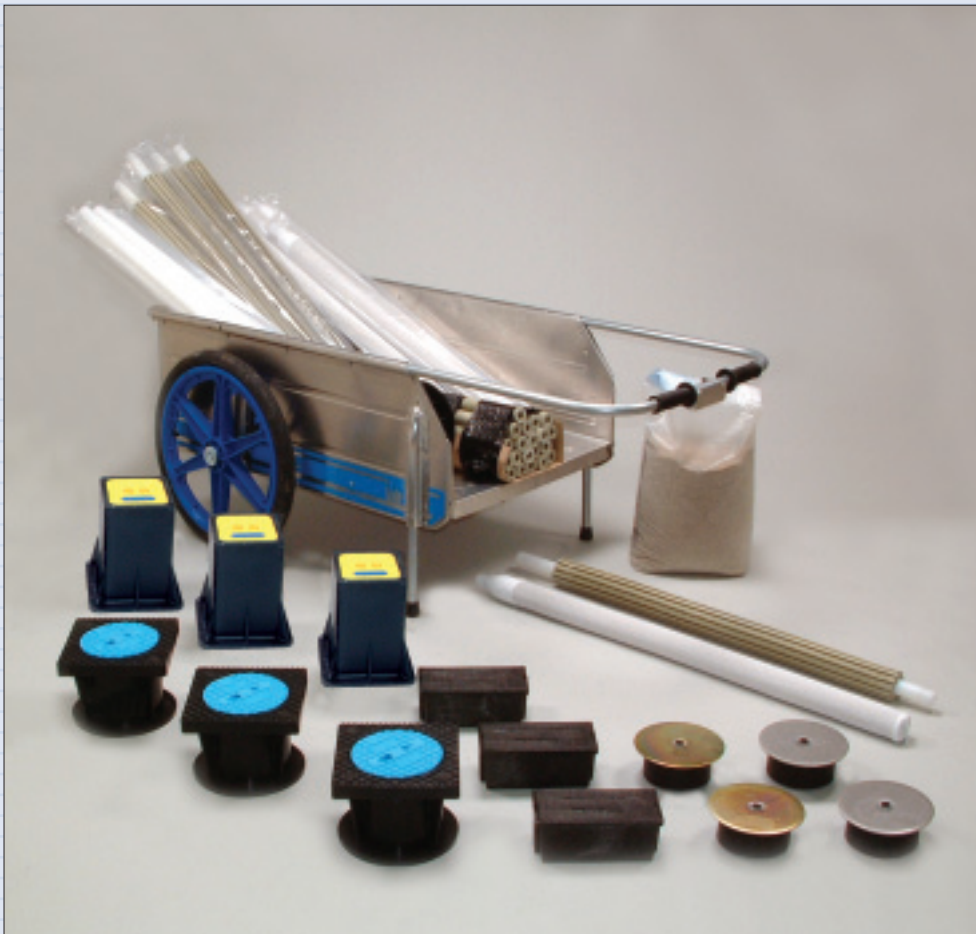
have been developed that reduce or eliminate the possibility of non-representative water samples, due to water leakage from one soil layer to another, or diffusion of chemicals into or within the monitoring system.

In order to guarantee the quality set by the NNI [Dutch Normalisation Institute], KIWA (Royal Testing Institute) and our customers, we execute, twice a year, leaching tests on our products as they are stored in our warehouses. The Eijkelkamp Toxic Leaching [Uitloging] (ETU) hallmark:

- Is cost saving for you as your input control can remain limited.
- Leads to more insight in the quality requirements to be set by us.
- Leads to quality improvements concerning our monitoring well products.

Quality certificates are an important tool, as our clients are to be convinced that striving for quality is as important to us, as it is to you.

The products are supplied with KIWA or ETU quality certificate.



Groundwater monitoring pipes and accessories

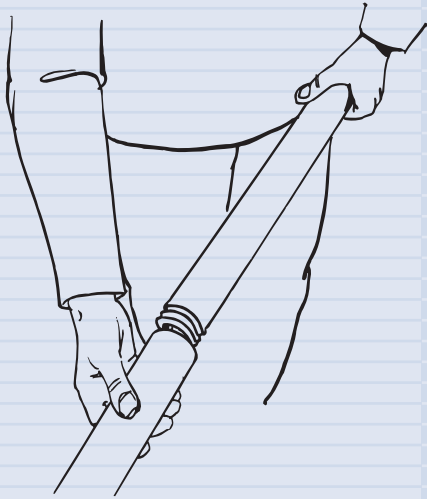


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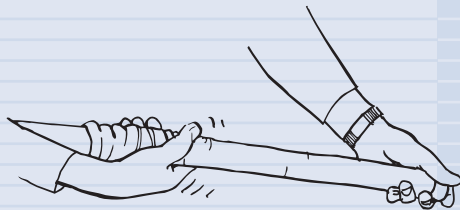


P2.01

The monitoring well pipes are screwed together for a leak-proof connection.



Filter gauze is slipped over the slotted part of the monitoring well pipe.



GROUNDWATER MONITORING PIPES

Traditional monitoring pipes

10.01 Monitoring well pipes & accessories

Monitoring well pipes are used to compose monitoring wells and piezometers. Monitoring well pipes are available in different materials and diameters, and are supplied in PE packaging.

All pipes have the following properties:

- Free of dust and sawdust.
- Demonstrably very low level of leaching.
- Large open surface.
- Normalized slit width (0.3 mm).

HDPE pipes with screwthread connection

These pipes cause no water pollution and provide high monitoring quality. HDPE provides satisfactory results, and it is much cheaper than Teflon. The pipes are provided with leak-proof threaded connections. The pipes are easily connected during sinking, and a smooth well pipe is realized. Suitable for deep monitoring wells.

HDPE pipes with clamping socket connections

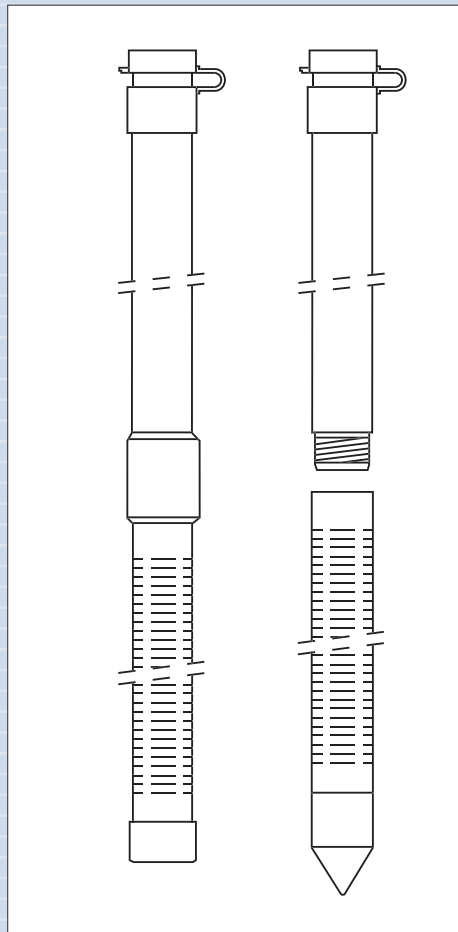
These HDPE pipes are provided with a clamping socket and have a thin wall. The pipes are suited for application in wells that monitor the first water containing layer at 6 meter at most.

PVC pipes without trace metals with connection mouths

These PVC pipes are produced with a fully organic stabilizer, causing no contamination. The pipes can be used for all organic and anorganic analysis. The pipes are provided with waterproof connection mouths, no glue is required for mounting. A sturdy slim well pipe is realized.

Accessories for well pipes

- Top and bottom caps for all pipes.
- Filter gauze from unique specially produced un-oiled yarn, used to prevent silting up.



Clamping socket and screw-thread connection



The monitoring well pipes are packed in PE bags

GROUNDWATER MONITORING PIPES



P2.01

- Hand operated bailer boring equipment for the usual drilling of a well (see P1.02).
- Electrical percussion hammer, used for installation of small diameter wells (see P1.10).

products for application in a standard auger hole that help to reduce the complexity and the time of installation, avoid the necessity for cleaning, and improve the efficiency and the quality of the monitoring well system.

High quality prefab monitoring pipes

10.05 Quality monitoring well

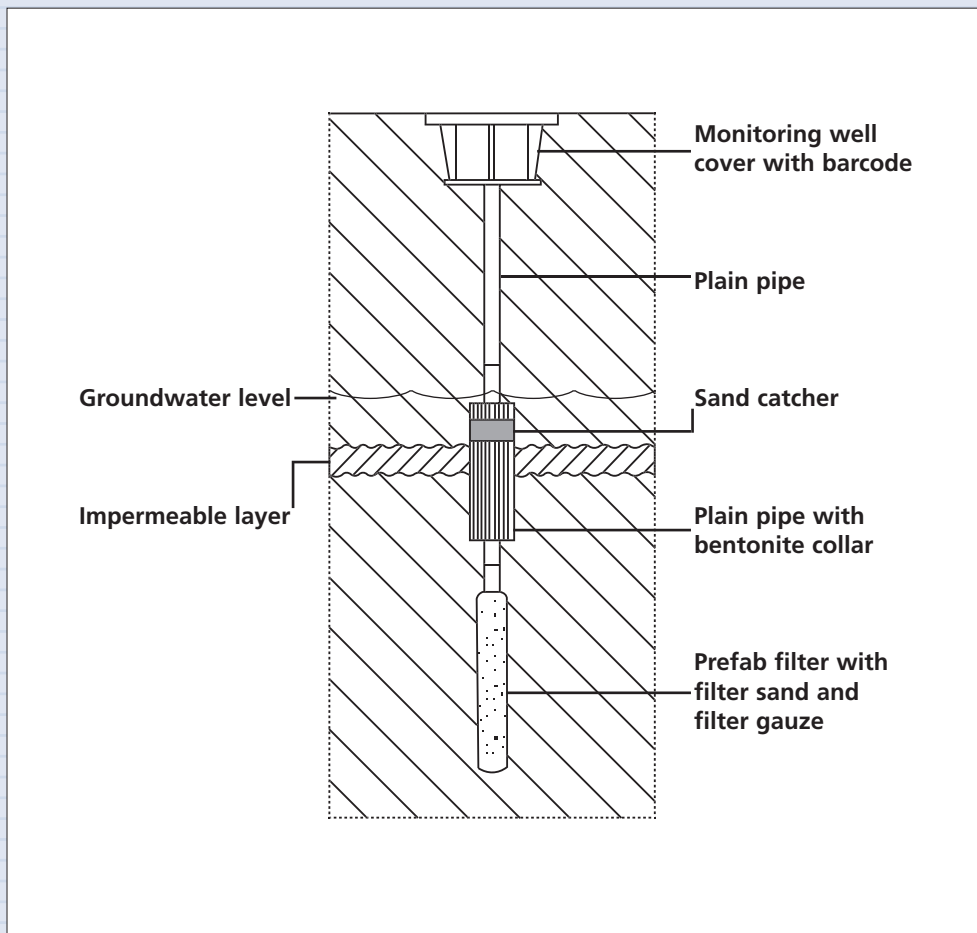
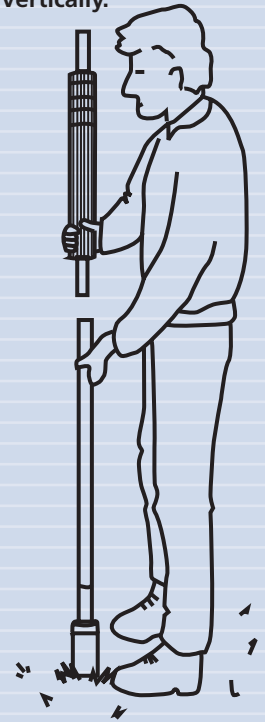
The assemblation of the filter parts and applying filter sand in a traditional monitoring well system is time spending, while storage and transportation of filter sand causes dirt and spoiling. The traditional use of bentonite in a auger hole around a well pipe often results in an insufficient sealing, as bentonite swells slowly, allowing sand to penetrate until the bore is completely sealed. An insufficiently centred filter system often causes unsatisfactory filtering and bentonite sealing. A traditional monitoring pipe system requires more cleaning as necessary, while the amount of water flowing through is affected also. Our program consists of a series of

The quality monitoring well consists of three components: a ready-to-use all-in-one filter pipe, plain pipes with bentonite collar and a sand catcher and is also available in a longer version.

Prefab filter with filter sand and filter gauze

The prefab filter consists of a filter pipe with filter sand around the perforated pipe (outside diam. max. 60 mm), fixed by a filter gauze. After installation of the filter in the auger hole, only larger soil particles are stopped by the gauze, while smaller particles are stopped by the pre-packed filtering sand. The function of the pipe slits is to stop the pre-packed filter sand only. The resulting filter is efficient, while the filter gauze

Prefab filter and plain pipe with bentonite collar are screwed together vertically.

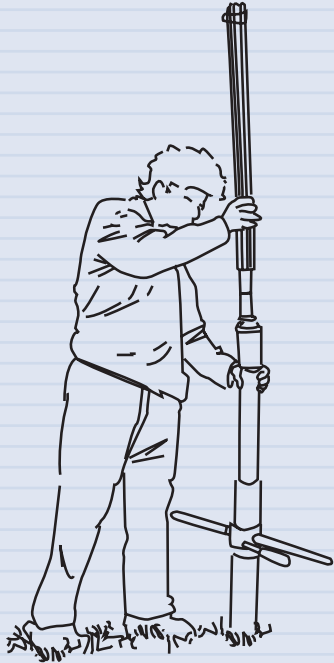


Overview of high quality monitoring well pipe

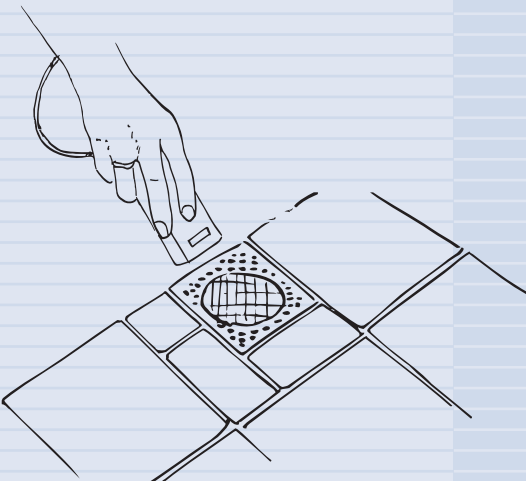


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The quality monitoring well pipe is lowered in the casing.



Reading out the bar code.



GROUNDWATER MONITORING PIPES

with filter sand causes perfect centration of the filter, in a auger hole as well as in a casing.

Plain pipe with bentonite collar

The HDPE pipes with screwthread connection, having a diameter of 32x25 mm, and a length of 1 m, are provided with a bentonite collar. Installation of the monitoring well consists of applying a casing tube in the auger hole first, while secondly the well pipes and the prefab filter are to be fixed in a vertical position, sinking the fixed pipes down into the casing tube.

As soon as the prefab filter has been sunk down to the right depth, the casing tube can be removed. The room around the well pipes in the auger hole at an impermeable soil layer is sealed by applying the plain pipe with the fixed bentonite collar.

The well pipes are supplied in packages of 5 pieces.

Sand/Bentonite catcher

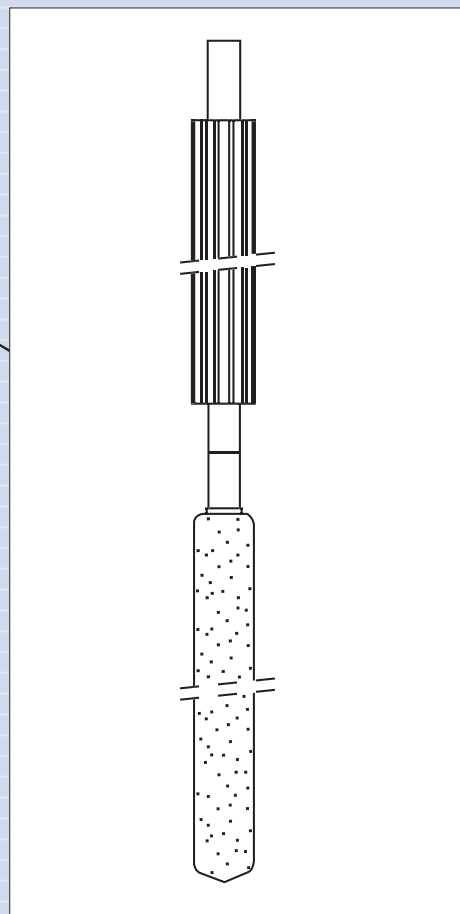
The synthetic Sand/Bentonite catchers will keep backfill material, liquid sand and bentonite products in place along well material. Thus preventing

these materials from moving to unswollen bentonite sections or to filter sections.

The high quality prefab monitoring pipe components are suited for application in casing tubes with a diameter between 70 and 100 mm.

High quality prefab monitoring pipe systems are characterized by the following advantages:

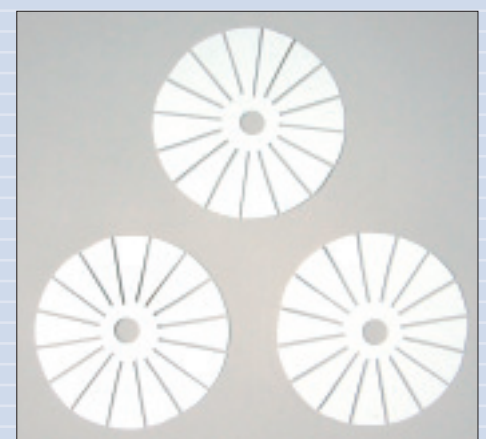
- No filter sand dirt during storage and transportation.
- Time savings during installation, due to absence of necessary filter assembly.
- Perfect centration of the well pipes and the filter.
- Efficient filtering and water flowing through.
- Increased lifetime, due to absence of the necessity to clean the system regularly.



Quality monitoring well



Plain pipe with bentonite collar



Sand/bentonite catchers

GROUNDWATER MONITORING PIPES



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Direct-well miniature monitoring system

10.04 Direct-well

The Direct-well is a miniature monitoring system consisting of a filter tube with filter gauze and a synthetic adapter, which is used to fix a PE tubing. Bentonite collars are slipped over the tubing, which causes the room between the tubing and the impermeable layer to be sealed. Due to its materials, the Direct-well system is suited for researching groundwater on all micro and macro parameters.

Advantages

- ❑ Simple installation.
- ❑ Very low purging volume before sampling.
- ❑ Easy sampling with peristaltic pump or foot valve pump.
- ❑ Strongly reduced water/air contact surface, resulting in minimal stripping effects and minimal oxidation

- ❑ Water level measurements with sounding apparatus with electrode diameter 4.8 mm.
- ❑ Can be used to large depths.
- ❑ Ideal monitoring well for use in gravel layers; perfect and rapid installation through percussion, sonic and sounding techniques.
- ❑ Little costs of materials and installation.

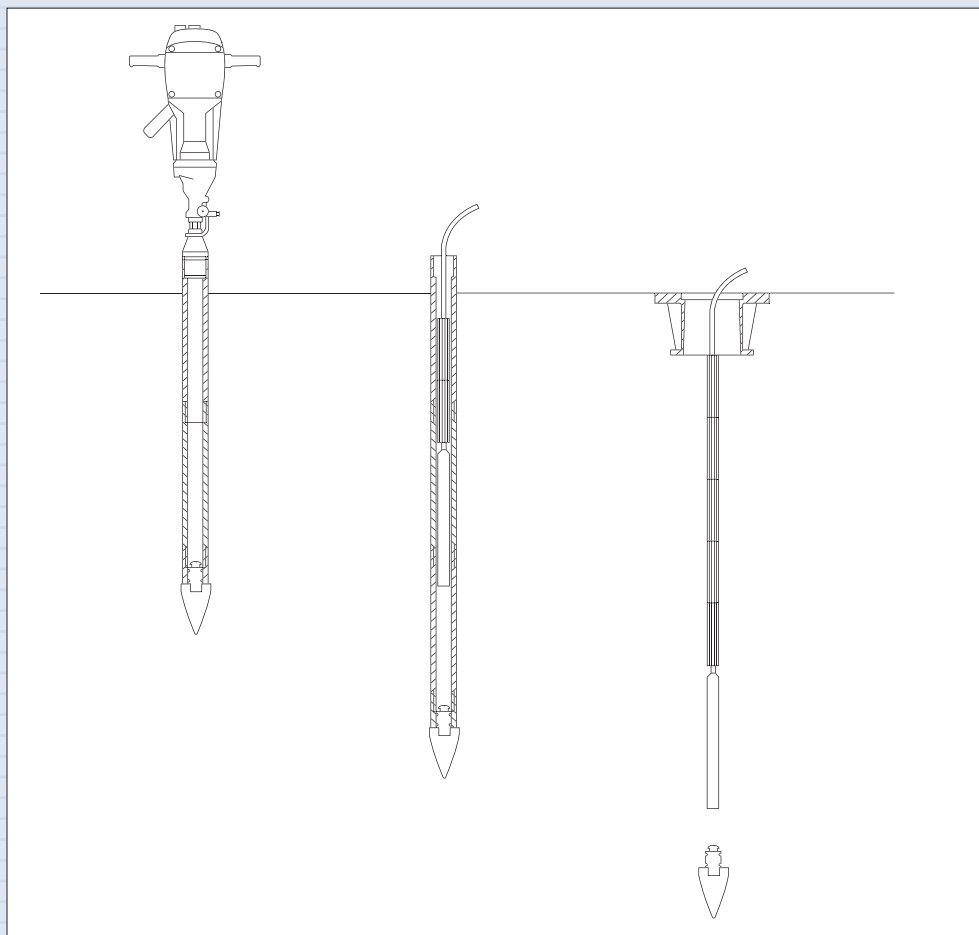
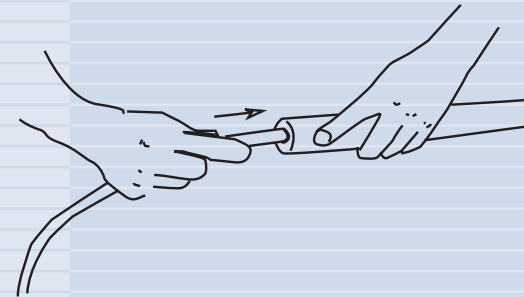
Direct-well filter

The Direct-well filter consists of a perforated pipe, length 1 or 2 m, covered with filter gauze (outside diameter 36 mm). At the top of the filter pipe a synthetic adapter allows fitting a 36mm x 2m tubing. The Direct-well filter is suited for application in a 45-70 mm drilled hole, as well as in a 40-70 mm casings.

Bentonite collar

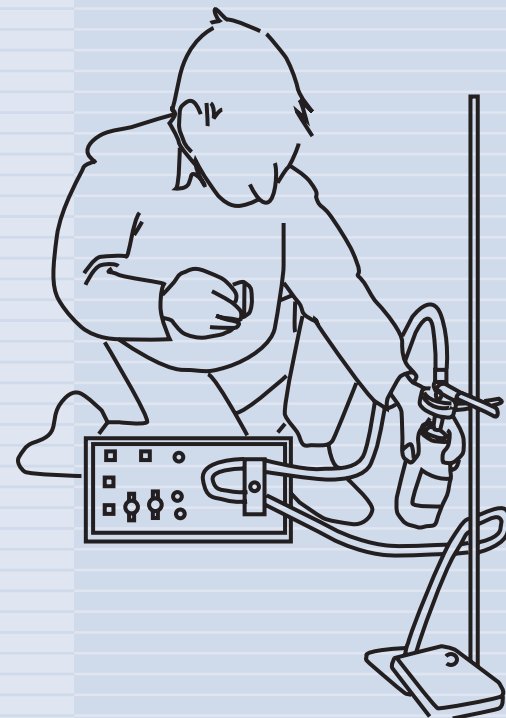
The available bentonite collars, diameter 35x15 mm and length 0.5 m, are suited for 10x12 mm tubing. The collars weigh 2 kg/m.

Bentonite collars are slipped over the tube.



Installation of a Direct-well using a percussion hammer

Sampling a Direct-well with a peristaltic pump 12 Vdc.

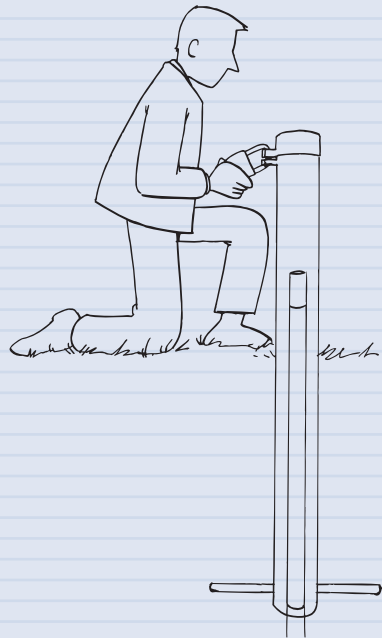


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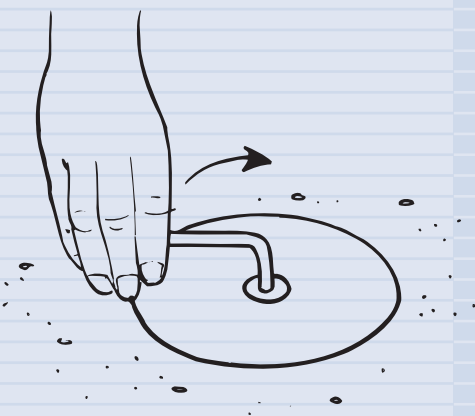


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After positioning the pipe cover the well can be locked with a series pad-lock.



Tightening the floor cover results in a liquid tight sealing.



GROUNDWATER MONITORING PIPES

Covers for monitoring well pipes

10.02 Well protection materials

To protect monitoring wells (and piezometers) against traffic, destruction, contamination and weather effects, various protective materials are available.

Pipe covers

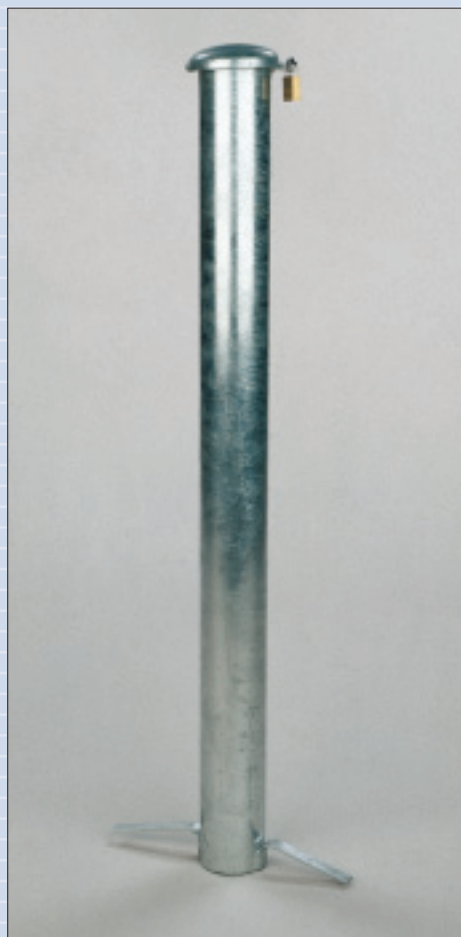
Steel pipe covers with a lockable lid are supplied in various diameters and lengths. The steel pipes feature a smart anchoring device. Instead of digging, only a relatively small augered hole is sufficient. It is possible to obtain a series padlock per order.

Monitoring well locks

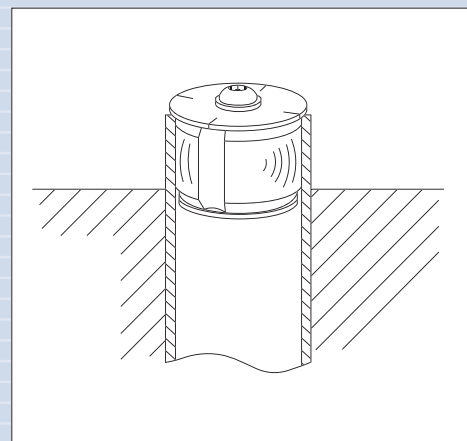
Monitoring well locks are available in various diameters with vandalism proof inner socket head screw. Because the locks are installed inside the monitoring well pipes, protruding parts are absent.

Liquid tight floor covers

The floor covers are suited for sealing 120-123 mm boreholes in concrete. The floor remains liquid tight, due to a chemically resistant rubber that seals the drilled floor at its coating. The cover lid causes minimal disturbance for a passing vehicle. The liquid tight floor cover is applied at gasstations, factories, garages, carwashes, chemical plants, etc. Two types of floor covers are available: a light and a heavy model. The light model has a 3 mm thick electrolytical galvanized lid. The light floor cover has a load taking capacity of 1000 kg according to NEN/EN 124. The cover is applied to seal holes in light loaded liquid tight floors.



Steel pipe cover



Monitoring well lock



Heavy and light liquid tight floor cover

GROUNDWATER MONITORING PIPES



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The heavy model has a 4 mm thick stainless steel lid. The cover has a load taking capacity of 1750 kg according to NEN/EN 124 and is used to seal holes in normal to heavy loaded liquid tight floors. For both covers at least a yearly inspection is recommended.

- ☐ Are UV-, frost- and aging resistant. HDPE also does not emit ftalates or heavy metals.
- ☐ Can be secured against break-in or sabotage by applying a specially designed bolt.
- ☐ Can be supplied carrying your company name and/or logo.

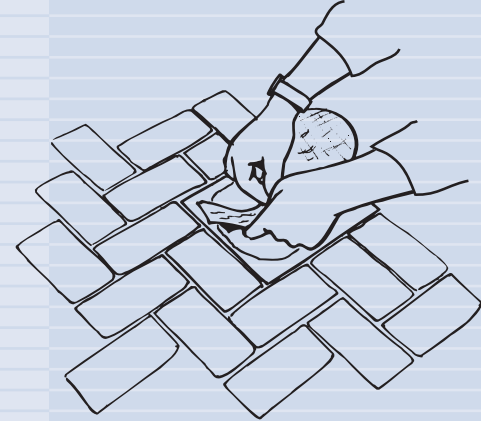
Monitoring well covers

Very practical HDPE covers are available, which:

- ☐ Are very spacious on the inside (diameter 135 mm) allowing smooth operation without injuring hands.
- ☐ Have ideal dimensions (200x200 mm) allowing easy fit in various kinds of road work (e.g. bricks in straight or elbow pattern, tiles, etc.).
- ☐ Have a strong lid and a stable construction. The lid has a load taking capacity of 350 kg according to NEN/EN 124. Note: these covers are not suitable to cover holes in roads.
- ☐ Have a large bearing surface against subsiding.
- ☐ Can be made fluid-tight by fitting an O-ring.

The available range of monitoring well covers starts with a standard lid design with recess for pull-out hook, and ends with a liquid-tight monitoring well cover with recess for pull-out hook and vandalism proof inner socket head screw. All monitoring well covers have an attachment hole for a monitoring well label or a transponder. Also included in our programm are synthetic monitoring well covers with cast-iron lid for use in road surfaces. Outside dimensions of this cover are 145x145 mm, height 250 mm. This cover has a static load taking capacity of 40 tons at 220°C (tested according to NEN/DIN).

After installing the monitoring well cover, a label is attached.

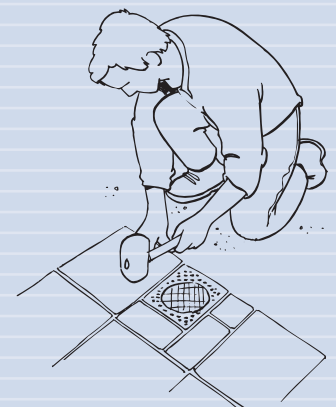
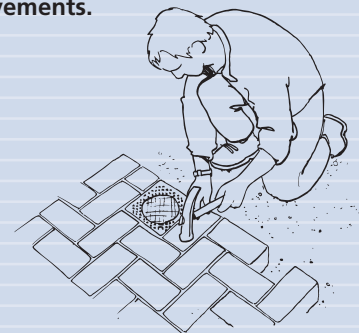


Monitoring well cover with monitoring well label



Monitoring well cover with synthetic lid and monitoring well label

Dimensions of the monitoring well allow easy fitting in various kinds of pavements.



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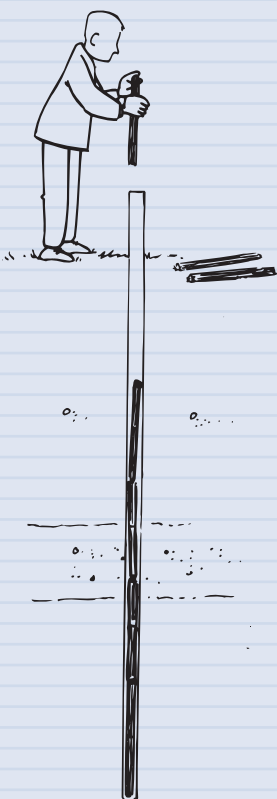


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Filter sand and bentonite are usually supplied in large quantities per pallet.



A layer of clay that has been bored through is sealed by using bentonite plugs.



GROUNDWATER MONITORING PIPES

Monitoring well labels

Included in our product range are two types of water resistant monitoring well labels, either with or without company name. Labels are supplied including tire-wraps.

Filter sand and bentonite products

10.98 Filter sand, supplied in bags and pallet packages

The filter sand, consisting of 99.5% SiO₂, is extremely low in trace metals and polycyclic aromatic hydrocarbons. This makes our filter sand the best sand available for monitoring well systems.

10.94 Bentonite plugs, supplied in packs

10.95 Bentonite plugs in pallet packages

Bentonite plugs are used for sealing bores to prevent water mixing from different aquifers, after augering. The plugs are available in 50 cm length and 34 mm or 48 mm diameter. The material used and the plugs' shape ensure a reliable hydrological

sealing. The plugs consists of 99% bentonite and only 1% synthetic fibres, resulting in absence of parts that could cause obstructions. An auger hole with a diameter of 70 mm will be entirely closed off in about three days.

The properties of bentonite plugs are:

- 100% sealing.
- Water pressure will not lift the plugs when swollen.
- Due to their rigidity and shape, the bentonite plugs can easily be pushed down to the desired depth.
- Bentonite plugs are environmentally safe.

10.96 Bentonite pellets in pallet packages

10.97 Bentonite pellets, supplied in bags

Besides bentonite plugs, bentonite pellets supplied in bags, are also available. All bentonite products are of type QSE, consisting of a completely natural unblended pure bentonite clay with a very high percentage montmorillonite. The pellets' diameter is 6 to 7 mm and the swelling capacity (in Enslin value) after 24 hours is at least 700%.



Filter sand



Loose bentonite pellets



Certificate



Detail of bentonite plugs

GROUNDWATER MONITORING PIPES



P2.01

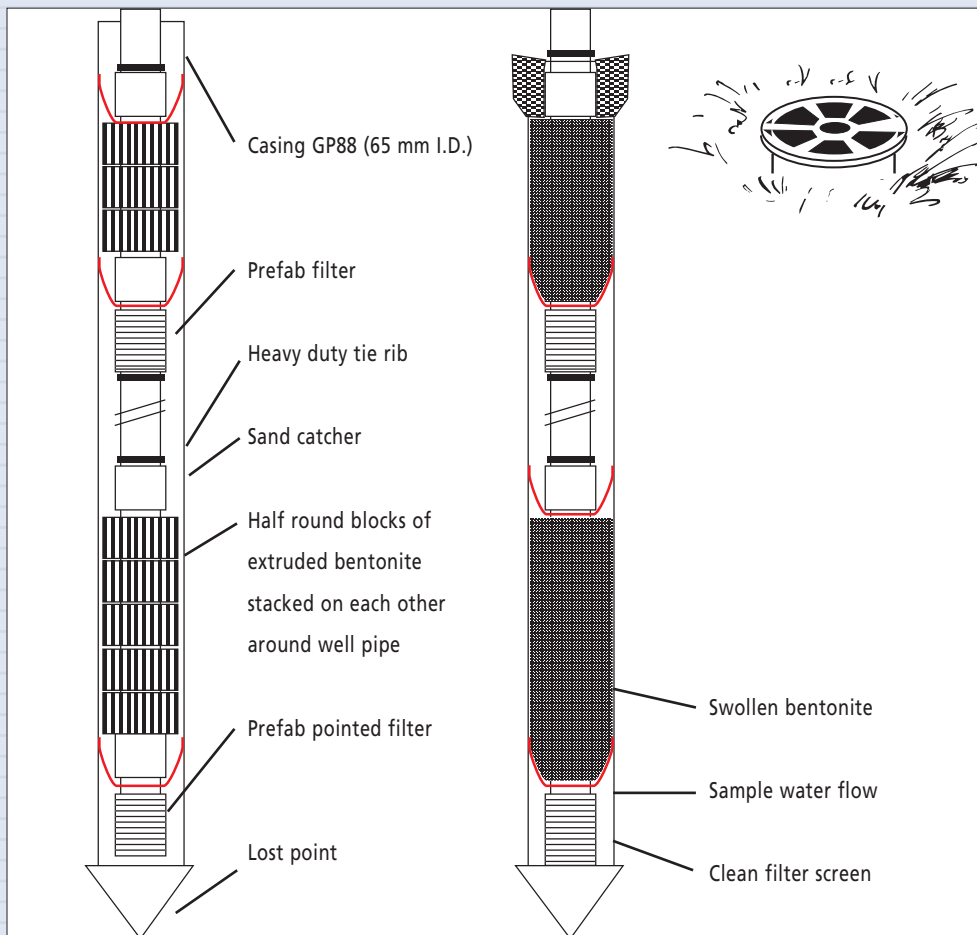
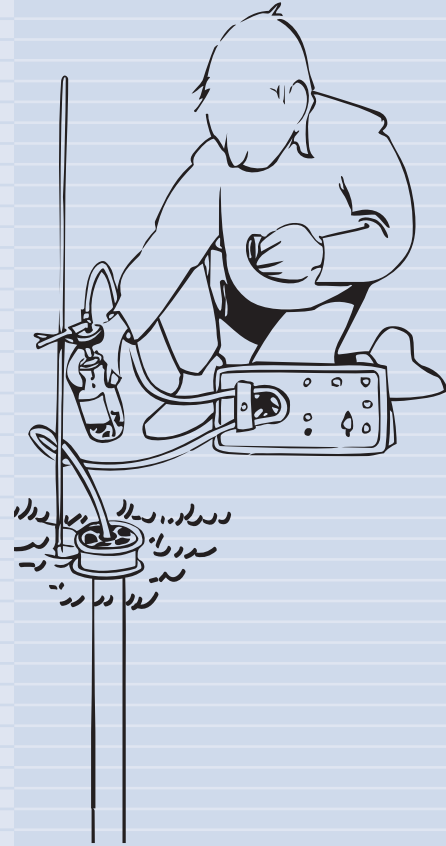
10.06 Multichannel monitoring well system

A multi channel well (3 or 7 channel type) can be installed in one single borehole and can be used to sample up till seven aquifers at the same time. The MCW consists of a thick but still flexible polyethylene tube with 3 or 7 parallel segments. At required depths the segments can be opened and mounted with prefab filters, semi-round bentonite blocks and sand-bentonite catchers that also act as centralizers. Depending on the type of bentonite blocks applied the MCW can be used in boreholes up till 120 mm.

Sand-bentonite catcher

Sand-bentonite catchers will keep backfill material, liquid sand and bentonite products in place along well material. Thus preventing these materials from moving to unswollen bentonite sections or to filter sections.

Sampling one of the channels with a peristaltic pump.





PARTS LIST

Art.no.	Description	Qty. in set	Art.no.	Description	Qty. in set
10.01 Monitoring well pipes and accessories			10.01.45	Top cap, with gate cap, 63 mm	10
	Natural HDPE screw thread connection		10.01.46	Bottom cap, pointed model, 63 mm	10
	HDPE pipes with screw thread socket, leakproof till min. 3.0 bar, with KIWA certificate. Perforated pipes with horizontal slits 0.3 mm Ø 32x25 mm, tensile strength max. 250 kg			Natural HDPE with clamping socket connection	
				HDPE pipes with clamping socket to a depth of 6 m. With KIWA certificate K20414/01 Perforated pipes with horizontal slits 0,3 mm Ø 32x28 mm	
10.01.27	32x25 mm, plain pipe 1 meter	5	10.01.90.01	32x28 mm, plain pipe 2 meter	20
10.01.20	32x25 mm, plain pipe 2 meter	5	10.01.90.02	32x28 mm, perforated pipe 1 meter	20
10.01.21	32x25 mm, perforated pipe 1 meter	5	10.01.90.03	32x28 mm, plain/perforated pipe 2 meter	20
10.01.28	32x25 mm, plain/ perforated pipe 2 meter	5		Accessories 32x28 mm	
10.01.27.02	32x25 mm, plain pipe 1 meter	35	10.01.24	Cap, natural PE, 32 mm	20
10.01.22.02	32x25 mm, plain pipe 2 meter	35	10.01.24.02	Insert cap, 28 mm	20
10.01.23.02	32x25 mm, perforated pipe 1 meter	35	10.01.24.03	Bottom cap, pointed model, insert 28 mm	10
10.01.25.02	32x25 mm, perforated pipe 2 meter	35	10.01.25	Top cap, with gate cap, 32 mm	10
10.01.28.02	32x25 mm, plain/ perforated pipe 2 meter	35	10.01.90.05	Clamping socket to connect pipes 32 mm	20
	Accessories 32x25 mm		10.01.90.90	Plier for installation clamping socket on pipe	1
10.01.24	Cap, natural PE, 32 mm	20		Ø 40x35 mm	
10.01.24.01	Insert cap, 25 mm	20	10.01.91.01	40x35 mm, plain pipe 2 meter	15
10.01.25	Top cap, with gate cap, 32 mm	10	10.01.91.02	40x35 mm, perforated pipe 2 meter	15
10.01.26	Bottom cap, pointed model, 32 mm	10	10.01.91.03	40x35 mm, plain/ perforated pipe 2 meter	15
	Ø 50x41 mm, tensile strength max. 300 kg.			Accessories 40x35 mm	
10.01.32	50x41 mm, plain pipe 1 meter	5	10.01.52	Cap, natural PE, 40 mm	25
10.01.30	50x41 mm, plain pipe 2 meter	5	10.01.55	Top cap, with gate cap, 40 mm	10
10.01.31	50x41 mm, perforated pipe 1 meter	5	10.01.91.05	Clamping socket to connect pipes 40 mm	15
10.01.33	50x41 mm, plain/ perforated pipe 2 meter	5		Ø 50x44 mm	
10.01.32.02	50x41 mm, plain pipe 1 meter	15	10.01.92.01	50x44 mm, plain pipe 2 meter	10
10.01.37.02	50x41 mm, plain pipe 2 meter	15	10.01.92.02	50x44 mm, perforated pipe 2 meter	10
10.01.38.02	50x41 mm, perforated pipe 1 meter	15	10.01.92.03	50x44 mm, plain/perforated pipe 2 meter	10
10.01.38.04	50x41 mm, perforated pipe 2 meter	15		Accessories 50x44 mm	
10.01.33.02	50x41 mm, plain/ perforated pipe 2 meter	15	10.01.62	Cap, natural PE, 50 mm	25
	Accessories 50x41 mm		10.01.35	Top cap, with gate cap, 50 mm	10
10.01.35	Top cap, with gate cap, 50 mm	10	10.01.92.05	Clamping socket to connect pipes 50 mm	10
10.01.36	Bottom cap, pointed model, 50 mm	10		PVC made of trace metal free PVC with connection mouth.	
	Ø 63x51 mm, tensile strength max. 475 kg.			PVC pipes with connection mouth. Made of trace metal free PVC. With KIWA certificate K20414/01 Perforated pipes with vertical slits 0,3 mm	
10.01.40.02	63x51 mm, plain pipe 2 meter	10			
10.01.42.02	63x51 mm, perforated pipe 1 meter	10			
	Accessories 63x51 mm				
10.01.44	Cap, natural PE, 63 mm	20			



Art.no.	Description	Qty. in set
10.01.16	25x21 mm, plain pipe 2 meter	25
10.01.17	25x21 mm, perforated pipe 1 meter	25
10.01.18	25x21 mm, plain/perforated pipe 2 meter	25
	Accessories HDPE 25x21 mm	
10.01.19	Cap, natural PE, 25 mm	25
	Ø 32x28 mm	
10.01.77	32x28 mm, plain pipe 1 meter	5
10.01.70	32x28 mm, plain pipe 2 meter	5
10.01.72	32x28 mm, perforated pipe 1 meter	5
10.01.71	32x28 mm, perforated pipe 2 meter	5
10.01.76	32x28 mm, plain/perforated pipe 2 meter	5
10.01.77.02	32x28 mm, plain pipe 1 meter	35
10.01.73.02	32x28 mm, plain pipe 2 meter	35
10.01.74.02	32x28 mm, perforated pipe 1 meter	35
10.01.71.02	32x28 mm, perforated pipe 2 meter	35
10.01.78.02	32x28 mm, plain/perforated pipe 2 meter	35
	Accessories 32x28 mm	
10.01.24	Cap, natural PE, 32 mm	20
10.01.24.02	Insert cap, 28 mm	20
10.01.24.03	Bottom cap, pointed model, insert 28 mm	10
10.01.25	Top cap, with gate cap, 32 mm	10
	Ø 40x36 mm	
10.01.50.02	40x36 mm, plain pipe 1 meter	25
10.01.53.02	40x36 mm, plain pipe 2 meter	25
10.01.57.02	40x36 mm, perforated pipe 1 meter	25
10.01.54.02	40x36 mm, perforated pipe 2 meter	25
10.01.56	40x36 mm, plain/perforated pipe 2 meter	5
	Accessories 40x36 mm	
10.01.52	Cap, natural PE, 40 mm	25
10.01.55	Top cap, with gate cap, 40 mm	10
	Ø 50x45 mm with horizontal slits 0,3 mm	
10.01.63.02	50x45 mm, plain pipe 2 m	15
10.01.64.02	50x45 mm, perforated pipe 2 meter	15
10.01.66	50x45 mm, plain/perforated pipe 2 meter	5
	Accessories 50x45 mm	
10.01.62	Cap, natural PE, 50 mm	25
10.01.35	Top cap, with gate cap, 50 mm	10
	Accessories for well Pipes (filter gauze).	
	Filter gauze polypropylene,	

Art.no.	Description	Qty. in set
	Ø 30 - 65 mm. With KIWA certificate BRL-K562/01	
10.01.04.01	Filter gauze 30 - 65 mm 10 meter	1
10.01.04.02	Filter gauze 30 - 65 mm 10 meter	15
10.01.04.03	Filter gauze 30 - 65 mm, incl. tightening strap 1 meter	10
10.01.04.04	Filter gauze 30 - 65 mm, incl. tightening strap 1 meter	100
10.01.04.05	Filter gauze 30 - 65 mm, incl. tightening strap 2 meter	10
10.01.04.06	Filter gauze 30 - 65 mm, incl. tightening strap 2 meter	100
10.01.13	Strap for tightening filter gauze	100
	10.05: Quality monitoring well.	
	HDPE Quality Monitoring well, Perforated pipe, slits 0,3 mm, with filter sand around (outside max. 60 or 72 mm) fixed with filter gauze. Materials tested acc. to ETU-hallmark.	
	Ø 32x25 mm. Tensile strength max. 250 kg.	
10.05.01.32	Perforated pipe fixed with filter gauze (outside max. 60 mm), 1 meter, screw thread socket.	5
10.05.05.32	Perforated pipe fixed with filter gauze (outside max. 60 mm), 1 meter, screw thread socket, extendable.	5
	Ø 50x41 mm. Tensile strength max. 300 kg.	
10.05.01.50	Perforated pipe fixed with filter gauze (outside max. 72 mm), 1 meter, screw thread socket	5
	Plain pipe, with bentonite collar (patent no. 1010059) outside Ø 60 or 70 mm. Leak-proof till minimal 3.0 bar. Materials tested acc. to ETU-hallmark	
	Ø 32x25 mm. Tensile strength max. 250 kg.	
10.04.01.32	Plain pipe, with bentonite collar (outside Ø 70 mm), 1 meter, screw thread socket	5
10.04.03.32	Plain pipe, with bentonite collar (outside Ø 60 mm), 1 meter, screw thread socket	5
	Accessories Prefab Monitoring Pipes	
10.01.25	Top cap, with gate cap, 32 mm	10
10.02.30	Monitoring well cover, outside dim. 200x200x150 mm. (lxwxh), load taking cap 350 kg.	1
10.04.99.65	Sand catcher for bentonite collar, Ø 65 mm. Prevents running in of sand in auger hole	10



PARTS LIST

Art.no.	Description	Qty. in set	Art.no.	Description	Qty. in set
10.04.99.99	Video instruction, application quality monitoring well, dutch spoken				
10.04 Direct well					
Direct wells miniature monitoring systems Direct well filter, Ø 36 mm. Perforated pipe with gauze and synthetic adaptor for PE tubing 10x12 mm.					
10.04.30	Direct - well filter Ø 36 1 meter	5			
10.04.40	Direct - well filter Ø 36 2 meter	5			
Accessories Direct well filter					
10.04.31	Bentonite collar for amongst others tubing 50 cm. 10x12 mm. Ø 35x15 mm. Weight 2 kg/m	20			
12.20.13	PE Tube, Ø 10x12 mm, with ETU-hallmark 75 meter	1			
10.02.30	Monitoring well cover, outside dim. 200x200x150 mm. (lxwxh), load taking cap 350 kg.	1			
Accessories for measuring water in Direct well filter					
11.03.18	Sounding apparatus with acoustic and light signal, special suited for mini-well, measuring range 8 m, Ø electrode only 4,8 mm, markings every 50 cm.				
Equipment for installation Direct well filter					
10.10.0	Lost cone drilling set, for lost cone drilling to a depth of 10 meter				
10.02 Well protection materials.					
Protective casing, hot dip electrozincd steel, casing lockable with padlock, with borehole anchoring (anchor: augering, not digging!)					
10.02.07	Protective casing, inside Ø 44 mm 1 meter	1			
10.02.08	Protective casing, inside Ø 77 mm 1 meter	1			
10.02.10	Protective casing, inside Ø 126 mm 1 meter	1			
Accessories protective casing					
10.02.00.03	Padlock brass, 30 mm, serie model	1			
Monitoring well locks					
Monitoring well lock to lock monitoring wells, with vandalism proof inner socket head screw, hexoganal.					
10.02.21.01	Monitoring well lock,	3			
			10.02.21.03	inner Ø 25 mm. Monitoring well lock, inner Ø 28 mm.	3
			10.02.21.05	Monitoring well lock, inner Ø 36 mm.	3
			10.02.21.07	Monitoring well lock, inner Ø 41 mm.	3
			10.02.21.09	Monitoring well lock, inner Ø 45 mm.	3
			10.02.21.11	Monitoring well lock, inner Ø 51 mm.	3
Accessories monitoring well lock					
			99.75.20	Handle with magnetic holder socket-head screws	
			99.75.24	Hexagonal socket head screw bit 4 mm.	
Liquid tight floor covers					
Floor cover plate for round holes Ø 120 - 123 mm in floors used by pedestrians and cyclists. Load taking capacity 1000 kg, tested acc. NEN/EN 124					
			10.02.62	Floor cover heavy stainless steel 4 mm cover plate	1
			10.02.67	Floor cover heavy stainless steel 4 mm cover plate	50
Accessories liquid tight floor cover					
			99.75.08	Socket-head screw wrench, hexagonal, 8 mm.	1
			99.12	Diamond countersink to install floor covers in concrete/ asphalt. Mills hole Ø 120 to 165 mm.	
Monitoring well covers					
Monitoring well cover, patent 1004942, HDPE, outside Ø 200x200x150 (lxwxh). Inside Ø 135 mm. Load taking capacity 350 kg, tested acc. NEN/EN 124 (cyclepaths, pedestrians)					
			10.02.30	Well cover, 200x200 mm	1
			10.02.30.01	Well cover, 200x200 mm Pallet	120
			10.02.31	Well cover, 200x200 mm. Liquid tight.	1
			10.02.32	Well cover, 200x200 mm. Lockable with hex. screw 5 mm.	1
			10.02.33	Well cover, 200x200 mm. Lockable with vandalism proof special screw 5 mm.	1
			10.02.34	Well cover, 200x200 mm. Lockable with hex. screw 5 mm. Liquid tight.	1
			10.02.35	Well cover, 200x200 mm. Lockable with vandalism proof special screw 5 mm. Liquid tight.	1
Accessoires monitoring					



Art.no.	Description	Qty. in set	Art.no.	Description	Qty. in set
	well cover		10.92.01	Bentonite plugs Ø 48 mm, 8 pcs. x 50 cm. 4 meter	1
99.75.05	Socket-head screw wrench, hexagonal, 5 mm	1	10.92	Bentonite plugs Ø 48 mm, pallet 4 meter	100
99.75.20	Handle with magnetic holder socket-head screws	1		Bentonite pellets (bags and pallets).	
99.75.25	Hexagonal socket head screw bit 5 mm.	1		Bentonite pellets Ø 6 to 7 mm for filling auger holes	
09.04.09	Pull-out hook	1		Type QSE. Suitable for restoring unpermeable layers in the soil. Enslin value after 24 hours min. 700%. KIWA product certificate K20236/01	
	Monitoring well cover, synthetic, outside 140x140 mm, inside 100x100 mm, height 230 mm, with yellow cast iron lid with text "Peilbuis" and blue marking with Eijkelkamp logo. Static load taking capacity 90-110 kN at 20 degrees Celcius.		10.97	Bentonite type QSE 700% (white bag) 25 kg	
10.02.16	Well cover, cast iron lid, 140x140 mm	1	10.96.05	Bentonite type QSE 700%, pallet (30 bags) 750 kg	
10.02.16.01	Well cover, cast iron lid, 140x 40 mm Pallet.	84		Type QSM. Suitable for filling Auger holes in unpermeable soils. Enslin value after 24 hours min. 200%.	
	Other monitoring well covers		10.97.51	Bentonite type QSM 200% (blue bag) 25 kg	
10.02.15	Monitoring well cover, type brick, 205x100x80	1	10.97.55	Bentonite type QSM 200%, pallet 30 bags 750 kg	
	Monitoring well label water proof, 120x55 mm, incl. tightening straps		10.06 Multi channel well (MCW)		
10.02.38.01	Monitoring well labels, bilingual (dutch, english)	100		Multi channel wells are supplied with three (3) or seven (7) channels. A system consists of consumables and tools for preparation of the wells. Installation can be done with Sonic GP 88 casings (Ø 88x65 mm)	
10.02.38.03	Monitoring well labels, with company name, logo black- white	1000		MCW3 consumables and tools	
10.92 till 10.98 Filter sand and bentonite products				MCW3 (three channel) system Consumables for MCW 3 system	
	Filter sand (bags and pallets). Filter sand out of a pit, glowd and sieved Ø 1 - 1.6 mm, with ETU- hallmark		10.06.03.01	Wellhead MCW3, with markings for 3 canals	5
10.98.03	Filter sand 1 - 1, 6 mm, sack 25 kg	1	10.06.03.02	MCW3 Tubing Ø 28 mm, HDPE 30 meter	1
10.98.04	Filter sand 1 - 1, 6 mm, sack 25 kg Pallet	32	10.06.03.03	MCW3 Tubing Ø 28 mm, HDPE 60 meter	1
	Bentonite plugs (bags and pallets).		10.06.03.04	MCW3 Tubing Ø 28 mm, HDPE 150 meter	1
	Bentonite plugs Ø 34 mm to seal borehole with Ø of 70 mm. maximum, patent nr. 1001708		10.06.03.11	Prefab Filters for round the slot MCW3, HDPE 25 cm.	20
10.94	Bentonite plugs Ø 34 mm, 20 pcs. x 50 cm. 10 meter	1	10.06.03.12	Prefab Filters for round the slot MCW3, HDPE 50 cm.	20
10.95	Bentonite plugs Ø 34 mm, pallet 10 meter	80	10.06.03.15	Lower filterpart HDPE, for MCW3 25 cm	5
10.95.C	Bentonite plugs Ø 34 mm, container 10 meter	1515	10.06.03.16	Lower filterpart HDPE, for MCW3 50 cm	5
	Bentonite plugs Ø 48 mm to seal borehole with Ø of 110 mm. maximum, patented design		10.06.03.19	Filterplugs for MCW3 canals	5
			10.06.03.20	BentoBlock Ø 27x60 mm. 10 cm.	50
			10.06.03.25	Bentonite/sand disc PE, Ø 27,5x180 mm	25
			10.06.03.27	Spacer MCW3, to fix (with tie ribs) filters and discs	50
			10.06.00.01	Tie ribs, model 116 EC	10



PARTS LIST

Art.no.	Description	Qty. in set	Art.no.	Description	Qty. in set
10.01.13	Tie ribs, model 3H	100			
	Tools for MCW3 system				
10.06.03.29	Clamp Ø 28 mm, for fieldwork on the MCW3 .	1			
10.06.00.02	Handcutter for the filter slots type Wiss M3	1			
10.06.00.03	Torque wrench hex for filter-plugs MCW	1			
10.06.03.35	Port cutter for filter chambers in MCW3	1			
10.06.00.04	Electrical cutter Makita, 220 V	1			
17.20.01.50	Measuring Tape 50 meter	1			
10.06.00.05	Plier for fixing and cutting the tie ribs	1			
	Accessories for use with GP 100 casings				
10.06.03.21	BentoBlock Ø 27x70 mm. 10 cm.	50			
	MCW7 consumables and tools				
	MCW7 (seven channel) system Consumables for MCW7 system				
10.06.07.01	Wellhead MCW7, with markings for 7 canals	5			
10.06.07.02	MCW7 Tubing Ø 41mm, HDPE 30 meter	1			
10.06.07.03	MCW7 Tubing Ø 41mm, HDPE 60 meter	1			
10.06.07.04	MCW7 Tubing Ø 41mm, HDPE 90 meter	1			
10.06.07.11	Prefab Filters for round the slot MCW7, HDPE 25 cm.	20			
10.06.07.12	Prefab Filters for round the slot MCW7, HDPE 50 cm.	20			
10.06.07.15	Lower filterpart HDPE, for MCW7 25 cm.	5			
10.06.07.16	Lower filterpart HDPE, for MCW7 50 cm.	5			
10.06.07.19	Filterplugs for MCW7 canals	5			
10.06.07.20	BentoBlock Ø 40x60 mm. 10 cm.	50			
10.06.07.25	Bentonite/sand disc PE, Ø 40,5x140 mm	25			
10.06.07.27	Spacer MCW7, to fix (with tie ribs) filters and discs	50			
10.06.00.01	Tie ribs, model 116 EC	10			
10.01.13	Tie ribs, model 3H	100			
	Tools for MCW7 system				
10.06.07.29	Clamp Ø 41 mm, for fieldwork on the MCW7	1			
10.06.00.02	Handcutter for the filter slots type Wiss M3	1			
10.06.00.03	Torque wrench hex for filter-plugs MCW	1			
10.06.07.35	Port cutter for filter chambers in MCW7	1			
10.06.00.04	Electrical cutter Makita, 220 V	1			
17.20.01.50	Measuring tape 50 meter	1			
10.06.00.05	Plier for fixing and cutting the tie ribs	1			