aquaSpin®

the WATER REVOLUTION !

A technology of HPreiss® INTERNATIONAL

„Everything comes from water! Everything is maintained through water!"
Johann Wolfgang von Goethe

Water is far more than just a liquid used for drinking, washing and irrigating

Did you know that…

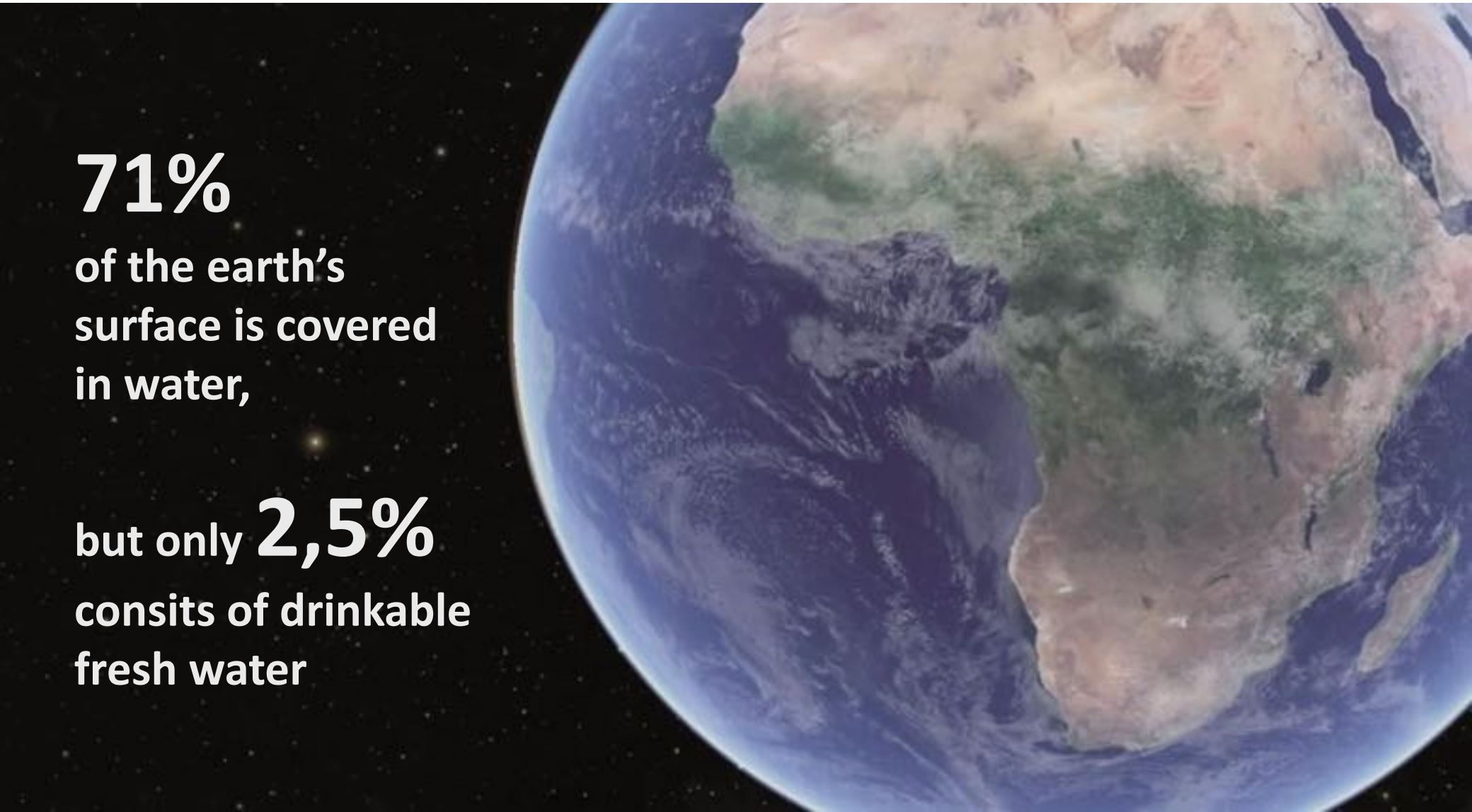
The quantity of water in the world remains unchanged, but the quality is changing

aquaSpin®

71%

of the earth's surface is covered in water,

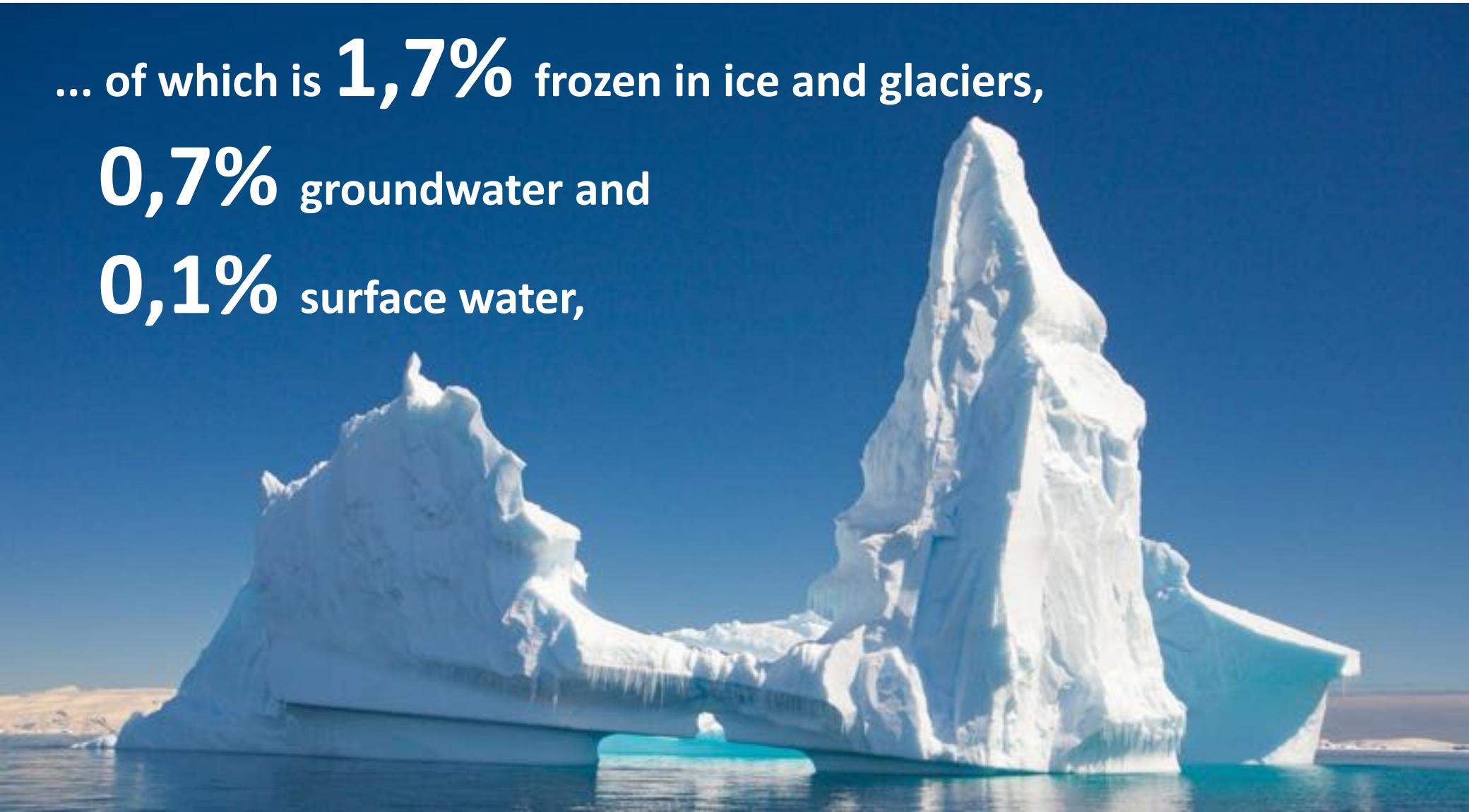
but only 2,5% consits of drinkable fresh water



... of which is **1,7%** frozen in ice and glaciers,

0,7% groundwater and

0,1% surface water,



aquaSpin®

less than **0,8%**

is available as drinking water.

We live in a very thirsty world

Water consumption

400,000 liter

27,000 liter

20,000 liter

16,600 liter

15,500 liter

11,000 liter

5,000 liter

3,500 liter

1,000 liter

It‘s time to think about our water quality


The majority of
water which
enters our homes,
we use as

…process water!

Water consumption per household/day in Germany:

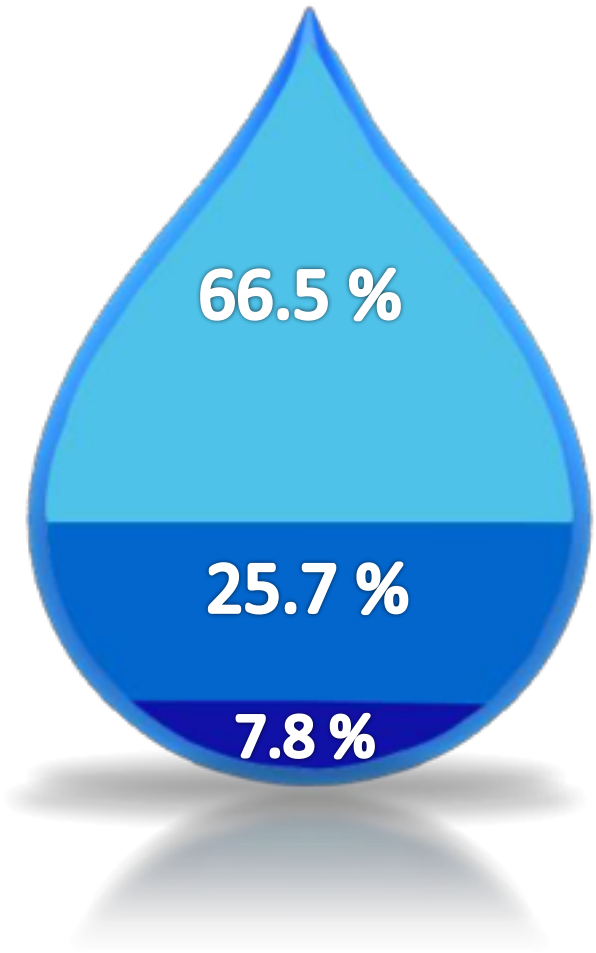
toilet flushing	dish washing	landry washing	cleaning & gardening
33 liter	**7 liter**	**15 liter**	**7 liter**




Amazing!

We need just **4 liter** for cooking and drinking.

Where does our water come from?



Our water collection has different origins:

Water collection from **groundwater**

water below the earth‘s surface, formed by the percolation of rainwater or migration from seas and rivers

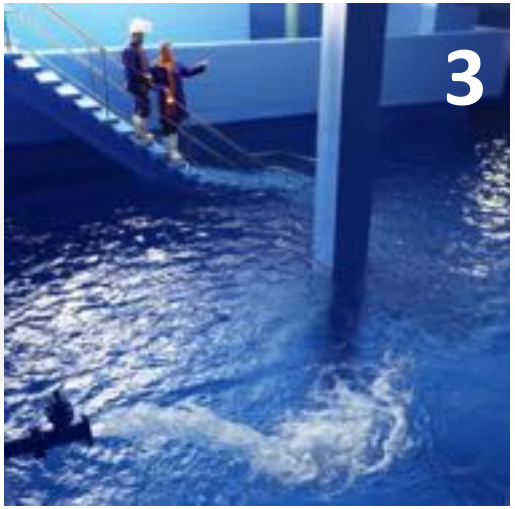
Water collection from **surface water**

water above the earth‘s surface like lake water, river water, water taken from dams or reservoirs and not yet percolated rain water

Water collection from **spring water**

water originating from natural, underground and pollutant-free reservoirs that has emerged naturally to the earth’s surface; so-called artesian matured water

The long journey of tap water



Environmental factors and their impact on water

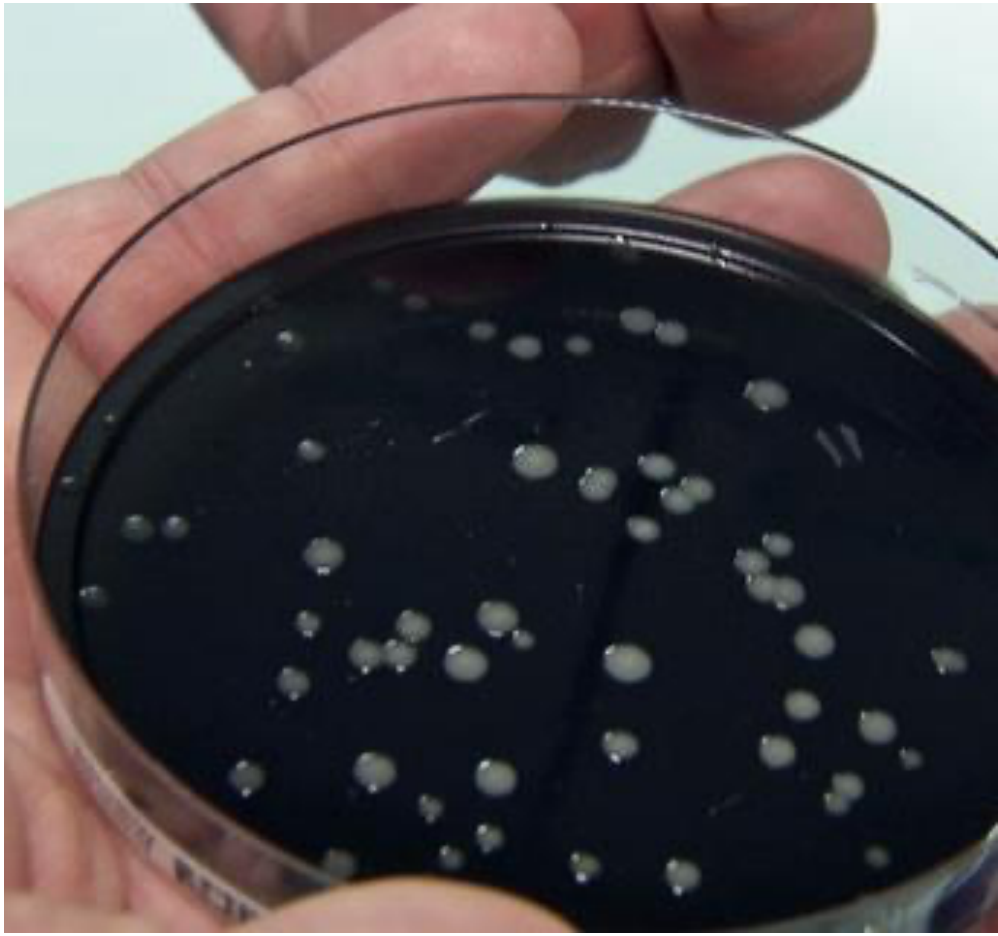
Now what has all of this got to do with my own home?

Saving costs through the use of bio-energetic activated aquaSpin water

Lime as a problem in households and its consequences

It settles in an ever-increasing thickness on the inner walls as a stubborn layer, which can lead after a very short time to high energy loss, blocked pipes, calcified heating rods in the washing machine, boiler and kettle or restricted water flow and the possibility of bursting pipes.

Legionella – a danger from the faucet



Troublemakers of heating systems
= performance reduction

HYDROXIDE

MAGNETITE

Why do all those deposits occur?

STAINLESS STEEL

COPPER

PLASTIC

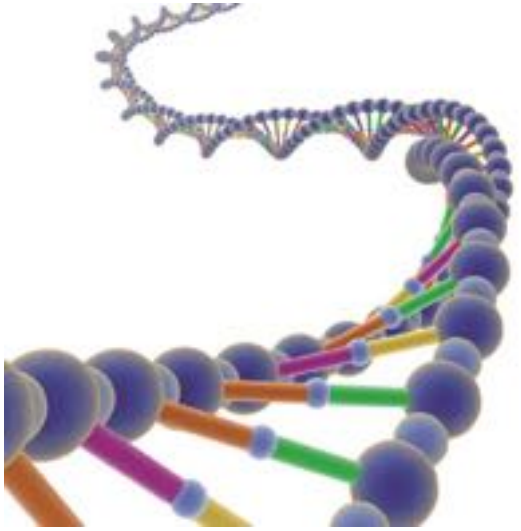
ZINC

COLD WATER

HOT WATER

The magic word: RENATURATION

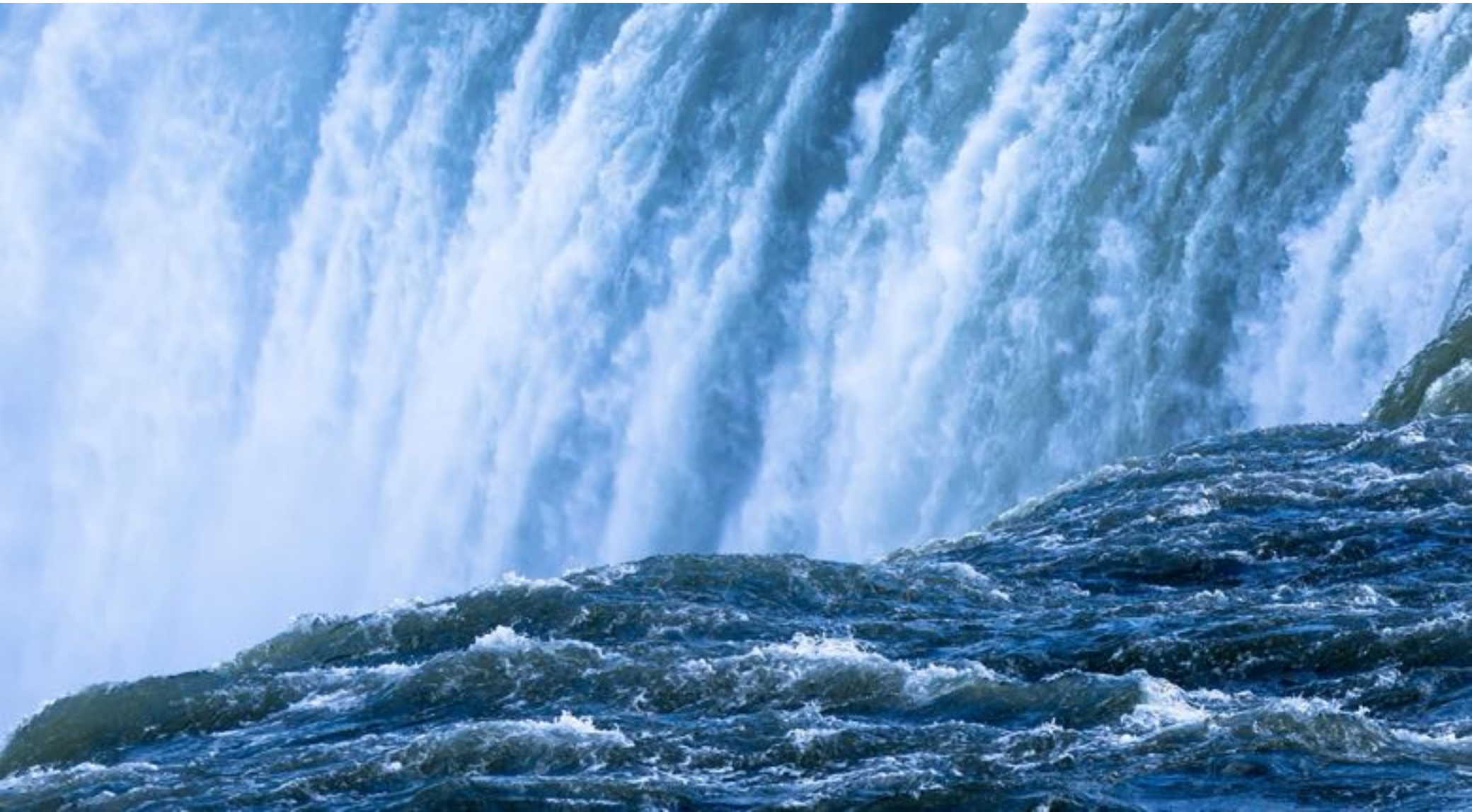
Everywhere in nature we can see forms of streaming, meandering and twisting



Nature does not know straight lines, it seems to love the creation of forms in all possible varieties

Nature purifies water by its self-cleaning power

Water is far more than just H_20

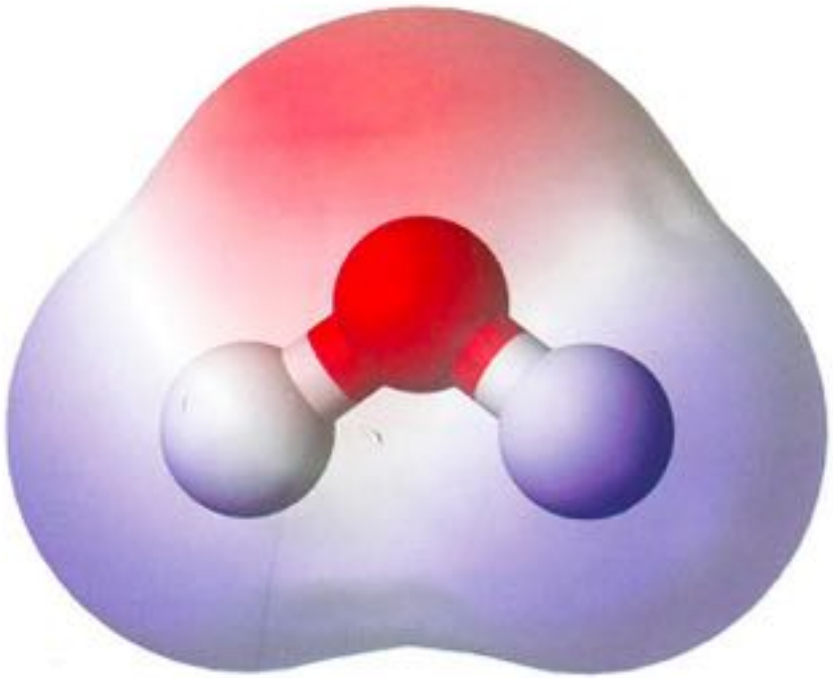


Let‘s have a closer look at the structure of water

A water molecule consists of two hydrogen atoms and one oxygen atom.

The water molecule is a dipole, it has one negative pole (O - atom) and one positive pole (both H - atoms).

Water molecules connect with each other to lager aggregations, so-called “clusters”.

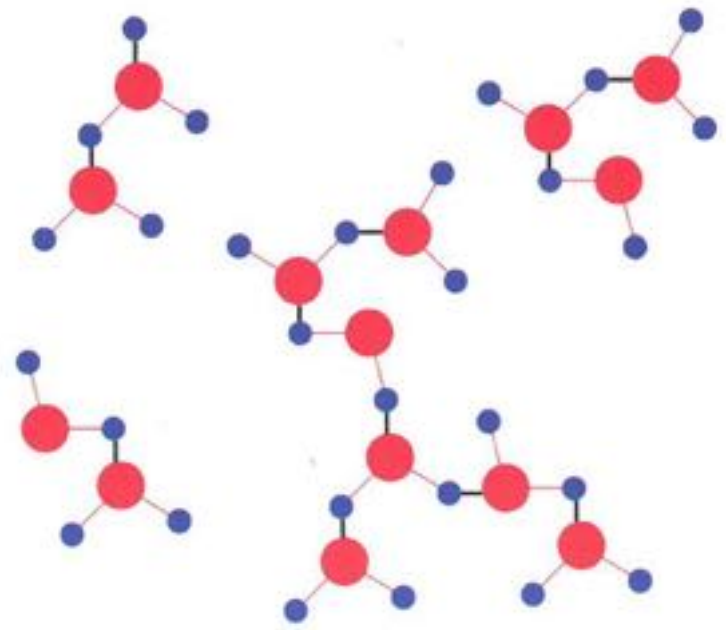


The kind of cluster is an indicator for the quality of water.

In general, it can be said that the smaller the cluster structure, the better the water quality. Small water clusters can better manage to penetrate the body cells.

The academic world has discovered that water enters the inner cell through specific water channels, so-called “aquaporins”.

For proving those water channels in the cell membrane, the scientist Peter Agre was awarded the Nobel Price for Chemistry in 2003.



scheme of water cluster

The information power of water

The information force of water

Because of its particular physical structure as liquid crystal, water is able to absorb, store and pass on frequency patterns from other substances.

„Scientists assume that the storage capacity within one drop of water is significantly higher as of all ever built computers together.“

But just as computers, clusters are also „sensitive creatures“. Both require “gentle” handling. By harsh handling those clusters clump together, so says the water researcher Karl Maret.

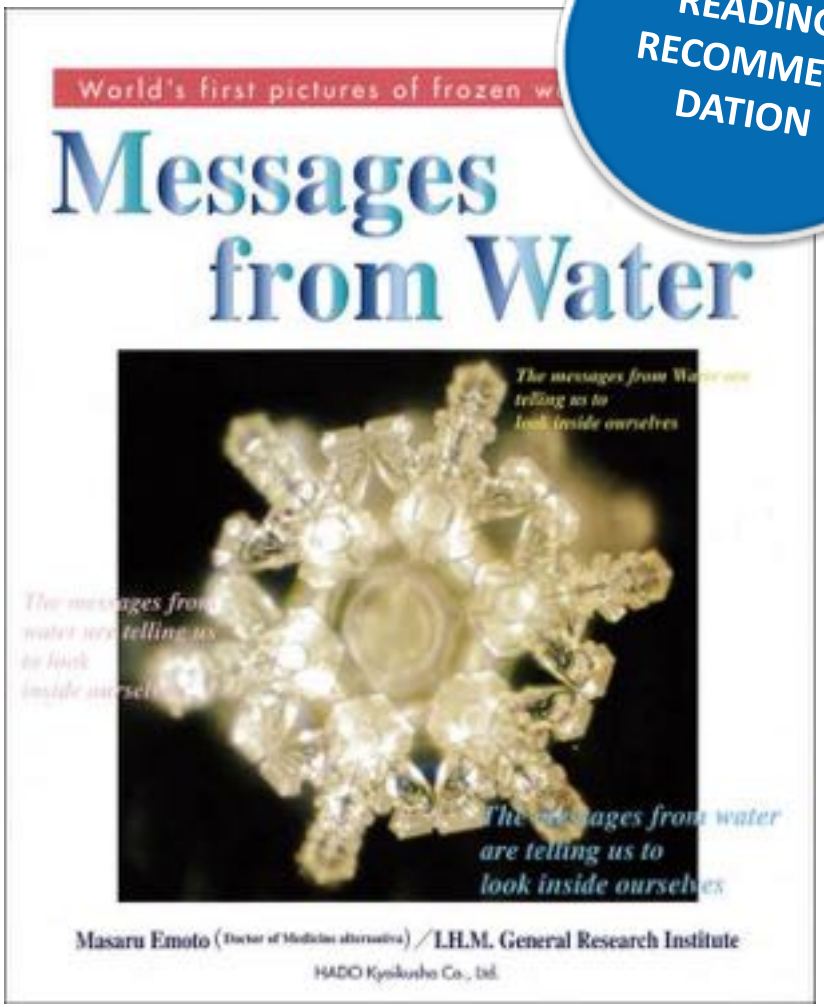
Harsh handling like for example the pumping of water from the underground, the transport in pipes at high pressure or the pressing through filters, has a negative impact on water.

READING RECOMMEN-DATION

Source: lebendiges Wasser – Quell der Gesundheit.
From Andreas Tichy

Water has a memory

READING RECOMMEN-DATION



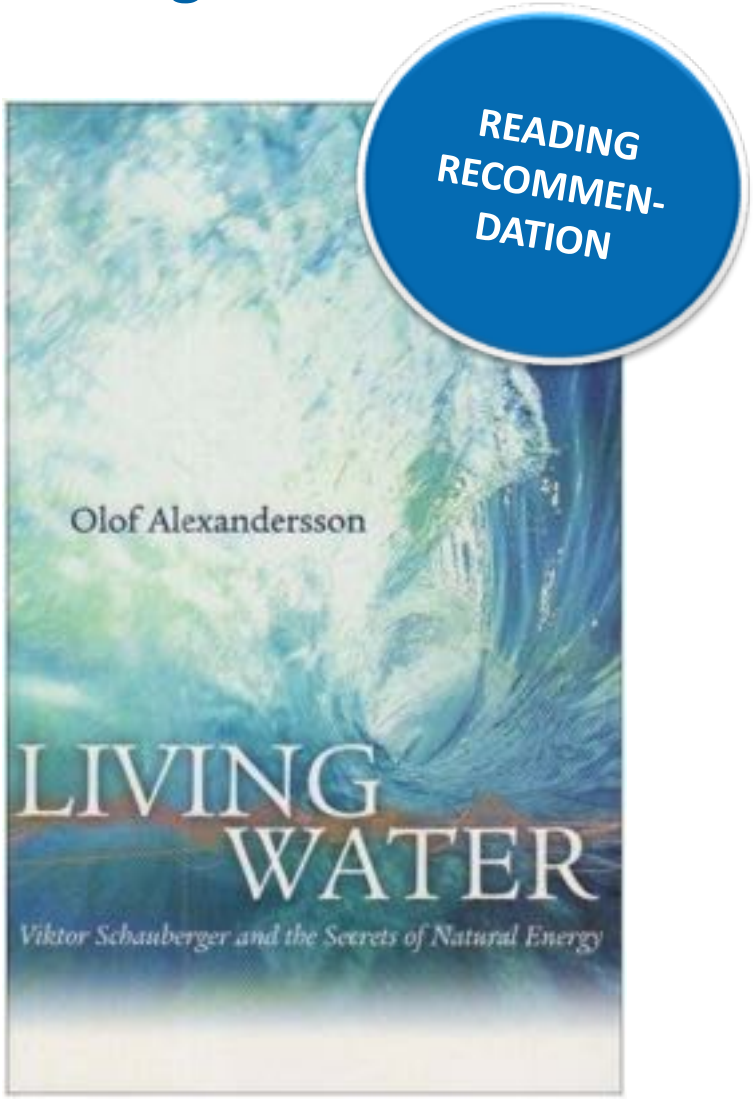
Source: Messages from Water. From Masura Emoto

We know, from the work of the Japanese Masaru Emoto at the latest that water is actually capable of storing information from it's environment.

For example, Emoto exposed water to different types of music. Afterwards, each water sample was frozen to form water crystals and investigated under a microscope.

The form of the water crystal shows that water forms different crystals depending on the type of music played.

Living water – Viktor Schauberger



Source: Living Water. Viktor Schauberger and the Secrets of Natural Energy. From Olof Alexandersson

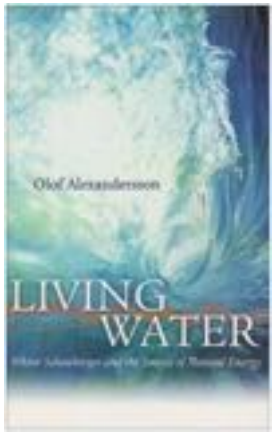
Viktor Schauberger 1885-1958

As a nature-loving forester he discovered a number of methods which were of great use for farming and in dealing with water (for example log flumes). His principle was: “Understand nature and copy it.”

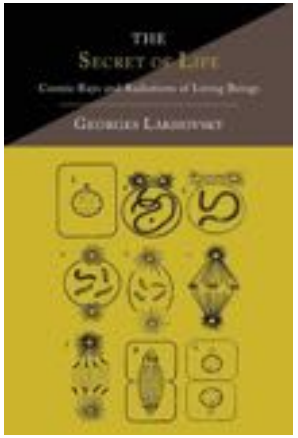
Schauberger developed a completely new concept of nature, energy and, not least, consciousness.

Viktor Schauberger is known, like Wilhelm Reich, Nikola Tesla and Georges Lakhovsky, as a discoverer of so-called “free energy”.

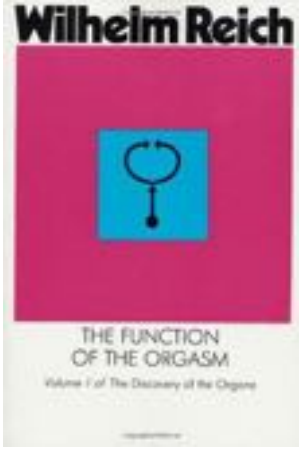
We combine the ideas and findings of water pioneers



Viktor Schauberger (implosion effect)



Georges Lakhovsky (form radiation)



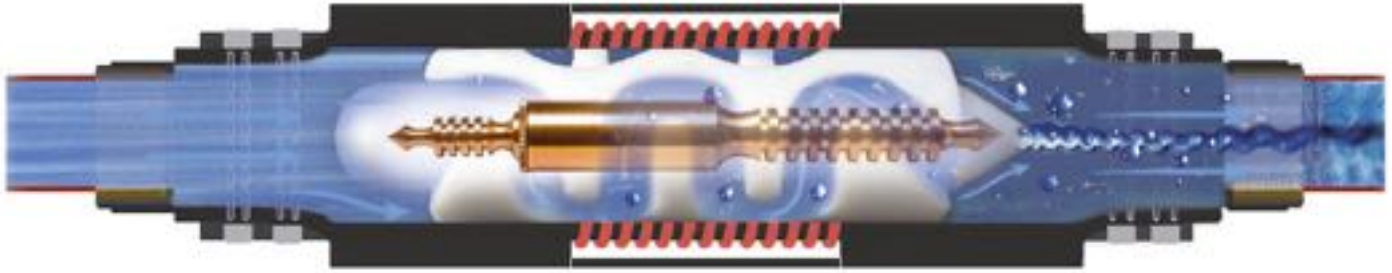
Dr. Wilhelm Reich (orgone accumulator)

Eckhard Weber (information transfer)

The solution: RENATURATION of tap water

We treat water following the model of nature

The aquaSpin is a multi-layered bio-energy accumulator with a special implosion technique to provide low-energy water considerable assistance to regain its original condition.



- ✓ Worldwide uniqueness with our components
- ✓ One-time investment – no maintenance or service costs are involved
- ✓ No consumption of electricity and waste water
- ✓ No use of chemicals
- ✓ Quality „Made in Germany“
- ✓ Inspected by TÜV Hessen and certified components

environmentally friendly

Made in Germany

5 YEARS WARRANTY

TÜV HESSEN

IfB

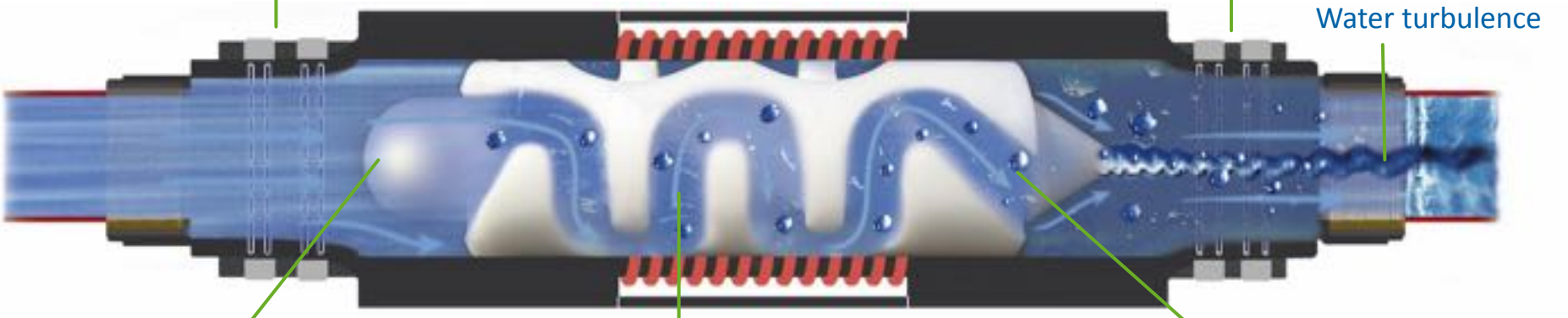
ZERTIFIKAT

Cross-sectional drawing I: aquaSpin PVC 1 inch

Neodymium magnets:
Magnetic field for
limescale treatment

Neodymium magnets:
Magnetic field for
limescale treatment

Water turbulence



Pre-accumulation chamber: Water comes into contact with the round plate and is fed into the channels of the meander helix.

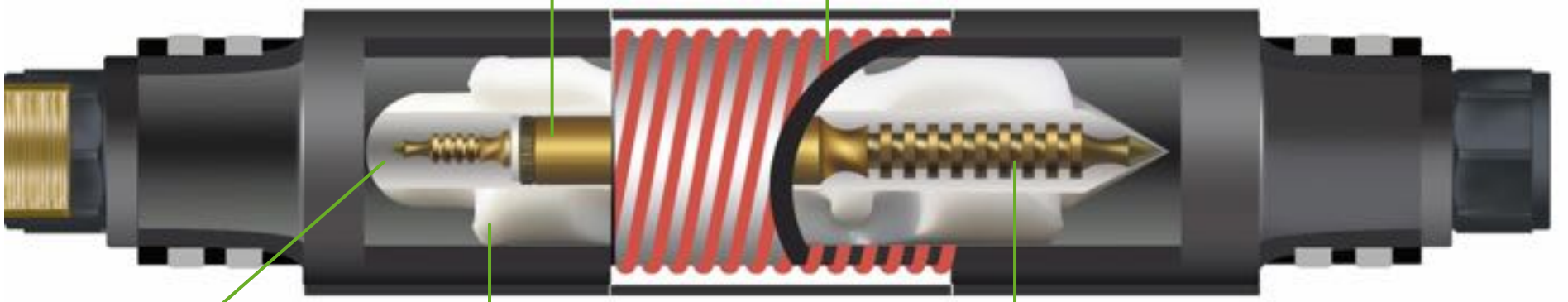
After the streamlined round plate the water comes into contact with three large inlet channels and is then fed through the POM-meander helix based on nature. A left- and right-turning whir is generated at every turn of meandering process. Then the water is fed into three angled channels, resulting in a higher flow speed of the water. The water is thus prepared for an optimal energy absorption through the bio-energy radiator and the following implosion.

In and after the meander helix the water is enriched by the bio-energy accumulator with oxygen information and other positive water information.

Cross-sectional drawing II: aquaSpin PVC 1 inch

On the inside is a water ampoule with spring water from an especially powerful medicinal spring.

A powerful left-turning copper helix with 13 coils is located on the inner PVC tube.



Maintenance-free mini bio-energy accumulator, radiating against the direction of flow. As a result, information is passed to the water before it arrives at the polyoxymethylene (POM) meander helix.

The POM meander helix generates the meandering and the desired turbulence effect, also known as an implosion, which is also used in nature.

Bio-energy accumulator (maintenance-free orgone radiator) with a nine-rib geometrical radiation form, in the direction of flow of the water. Above this there is an additional right-turning Lakhovsky copper helix (not displayed on this diagram). Another brass probe with a milled geometrical helix and additional turbo-charger, an ampoule with special medicinal water (Nordenau healing gallery) rock crystals, quartz sand and biological cotton in which positive information is stored are all located on the inside of the bio-energy accumulator. As a result the energy absorption ability of the water is maximized, even if the water is calm.

Practical applications for households and daily advantages

Pure Taste – Re-discover aroma!

Made to suit your taste!
Did you know that we humans can differentiate between ten thousand different aromas? Not without reason is an “explosion of flavors” referred to in this context.

Bio-energetic activated water convinces through its fine taste, easy digestibility and long shelf-life.
All aromas and ingredients can develop to their full extent in modified aquaSpin water.

It is for this very reason that lovers of coffee and tea swear on soft, fresh and activated water. This guarantees exceptional drinking enjoyment and all foodstuffs become part of an incomparable taste experience.

Enjoy with all your senses and still have a good feeling.
Simply do something for your well-being. Stay relaxed and have a clear conscience regarding the environment.

Improvement in the water quality and active limescale protection

Baths and showers

The mains water that is transformed using aquaSpin becomes silky-soft feel-good water. Whether in the bathroom, shower or in a whirlpool or swimming pool, the activated water is a real treat for the skin and hair and preserves the state of taps and fixtures.

After a bath in aquaSpin water, the skin feels softer, hair is shiny, your muscles are more relaxed and you feel full of energy.

Additionally, users of the aquaSpin technology provide an active contribution to environmental protection due to the positive change in the water, because they save on shower gel, shampoo and bath additives through the softness of the water.

Positive impact on equipment and surfaces

Washing and coffee machine, dishwasher, kettle, etc.
Over time an increasing amount of limescale becomes deposited on our washing machine. In addition to the heating rod, limescale also damages the drum, hoses and pipes. The heating rod may break down. Hoses which are corroded by limescale become leaky and can cause damage to a washing machine.

Limescale also affects the washing performance: Not all traces of detergent are able to be removed from the inside of the machine, particularly at low temperatures. This may lead to mold, bacteria and, not least, to unpleasant smells. Other devices also suffer from limescale. As a result, chemical descaling agents from the supermarket are often used.

After the installation of aquaSpin, limescale deposits are from now on much easier to remove, can be quite simply wiped off with a damp cloth. You do not simply save on time but also on money for detergents.

Further benefits

What our customers say:

- Animals prefer vitalized water and drink more of it
- When animals drink activated water the immune system of the animals becomes more robust resulting in fewer costs of veterinary expenses
- Older animals become more vital
- More beautiful fur thanks to activated water
- Animals become more balanced
- Watering bowls and troughs remain longer algae-free
- Milk tastes more refined and higher milk output of cows has been experienced
- Higher agricultural yields
- Stronger plant growth; for example grain, fruits and vegetables
- Cut flowers stay longer fresh
- Vegetables and fruits stay longer fresh
- Better barn climate and better rotting of the dung

Our aquaSpin technology finds applications in many varied fields

Studies, experience, reports, & findings

Humans = “Creatures of the water“

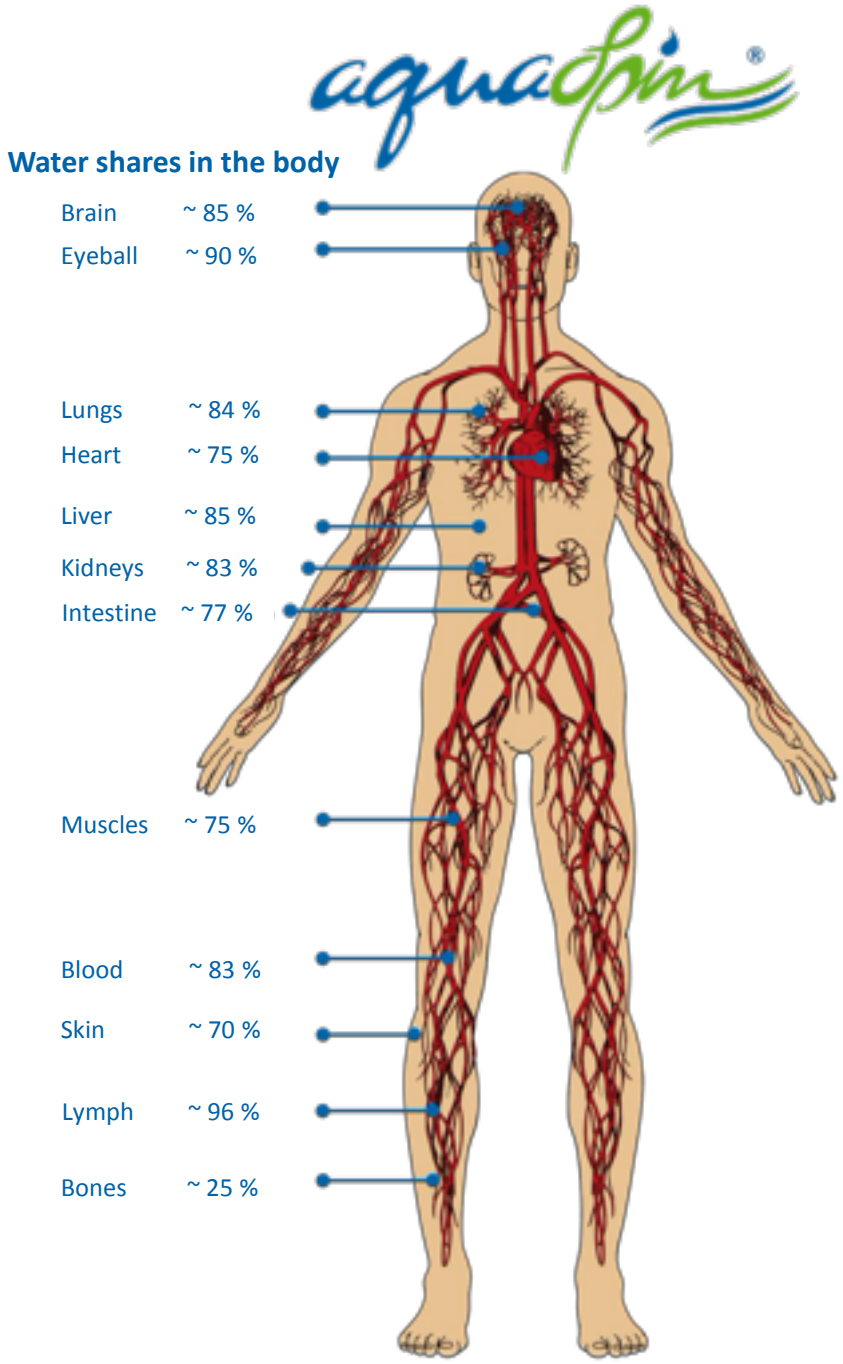
Water is the carrier of life and has become more and more frequently the center of health discussions. Many complaints and illnesses are related to the water shortage in the body. Water shortage effects the physical and physiological body functions.

Water fulfills numerous functions in the body as ...

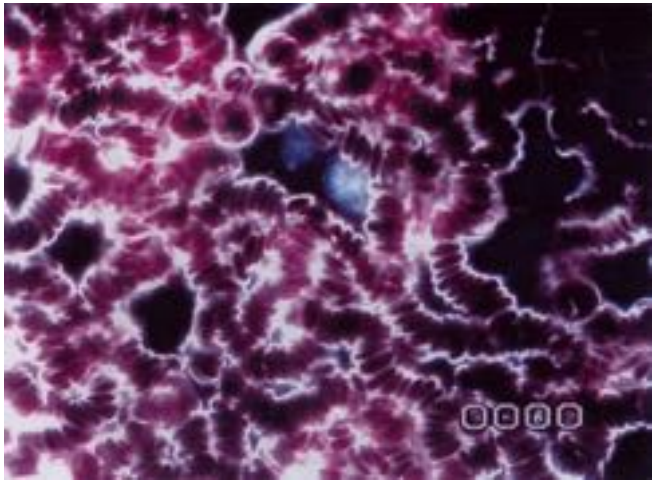
... solving agent
... transport agent
... cleansing agent
... carrier of information

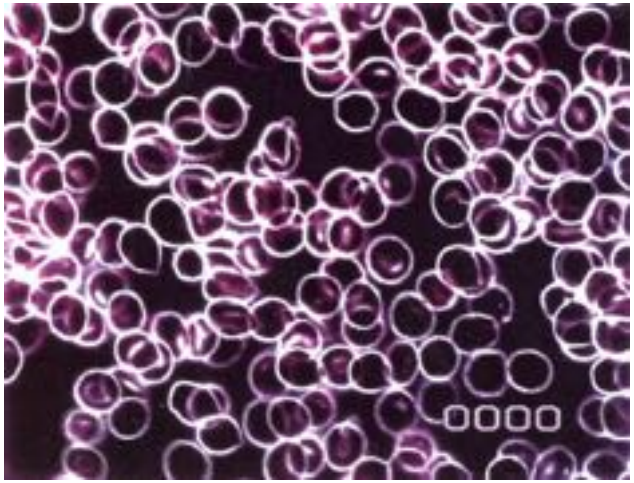
Did you know?

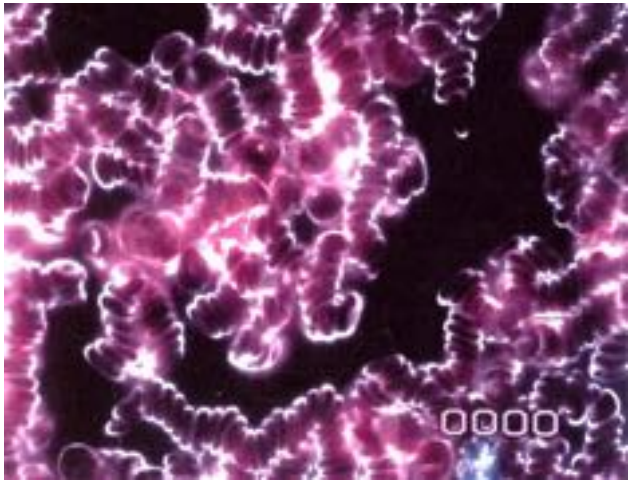
98% of all metabolic functions in the human body depend on two factors: the quantity and quality of water.



Findings dark field microscopy







Experimental design:

Experiment 1
A drop of blood is drawn from the finger tip of the index finger of a test subject and then examined under the microscope

Experiment 2
Test subject takes a glass with bio-energetic activated water from the aquaSpin: Drop of blood is drawn and examined like in Test 1

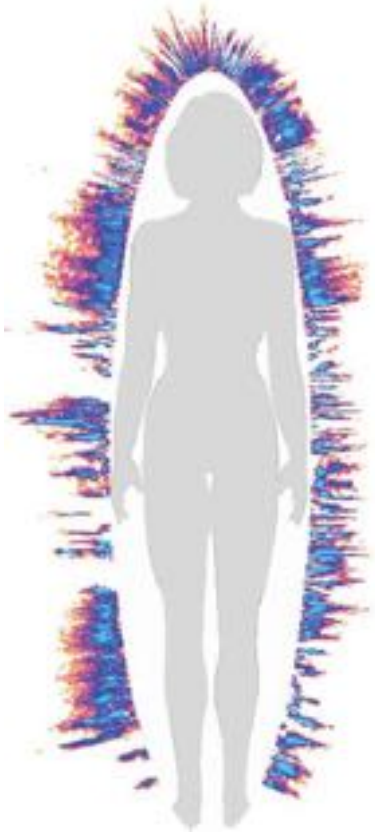
Experiment 3
Test subject takes a glass of local tap water: Drop of blood is drawn and examined like in Test 1

Bio-Energy-Study

Water, energized through the aquaSpin technology, has a positive impact on

- the energy level,
- the regulation ability
- and the stress level

of the human organism.



IfB Institute for Bioelectrophotonics

CERTIFICATE

This is to certify that

Bio-energetically vitalized H.Preiss-Water

from a

H.Preiss-Water Activator

provides a significant positive effect on the Energy Level, the Regulation Ability and the Stress Level of the Human Organism.

The supporting effect of this water, produced by the use of the Environmental Technology ***aquaSpin®*** by H.Preiss International, has been documented in the Report

Study of the Effect of Bio-energetically Vitalized H.Preiss-Water on the Energetic Properties of Test Persons

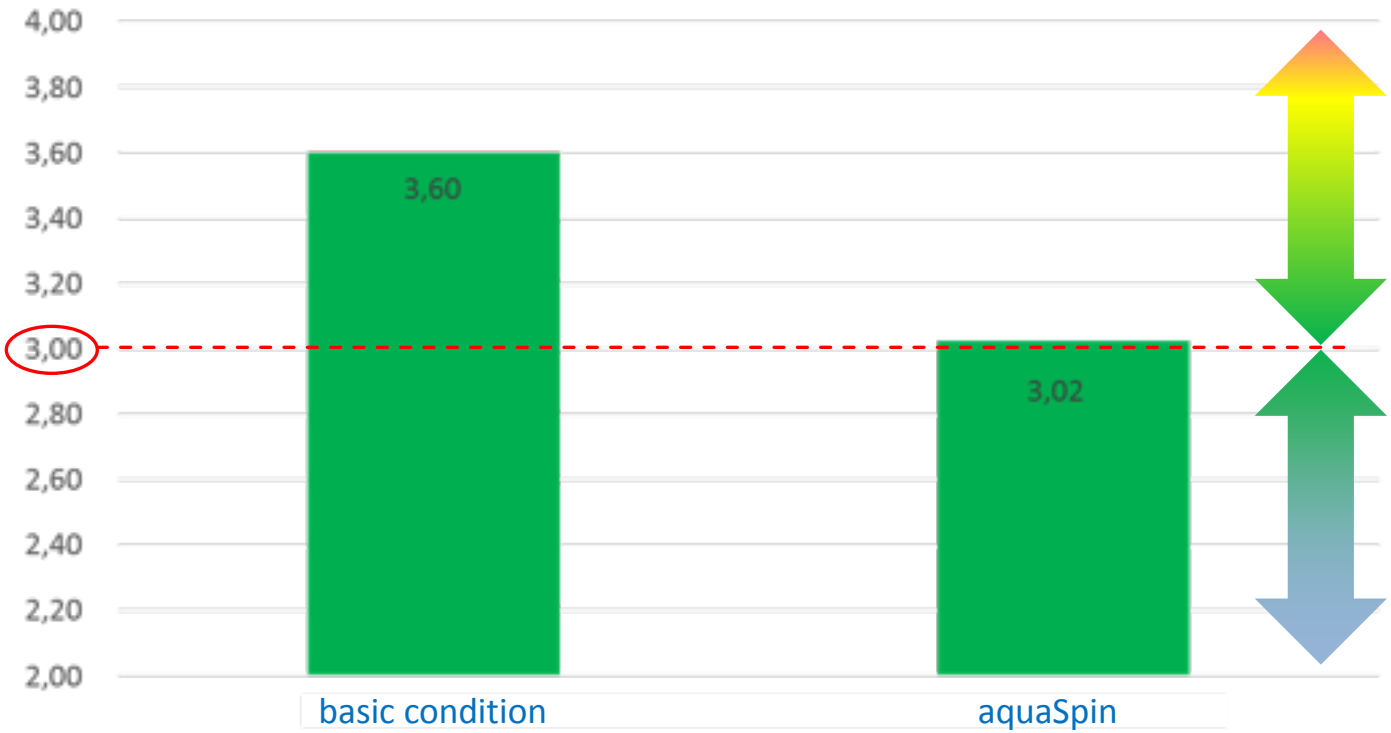
The measurements and evaluation of Bio-Energy Field Parameters of 28 Test Persons were provided by the Institute for Bioelectrophotonics.

Wuerzburg/Germany
January 9, 2016

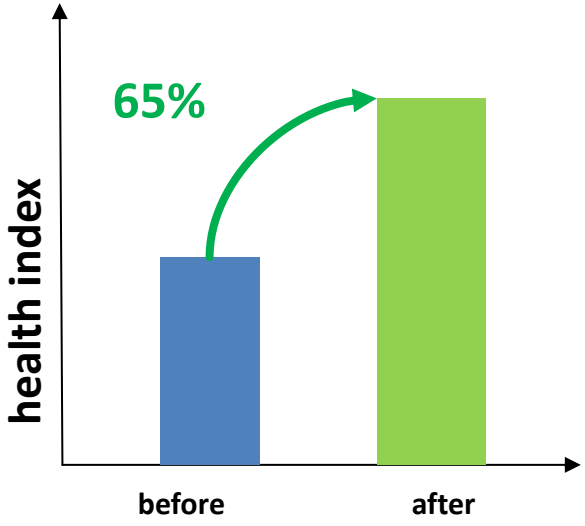
Lutz Rabe, M.Sc. EE
Institute for Bioelectrophotonics
European GDV Center

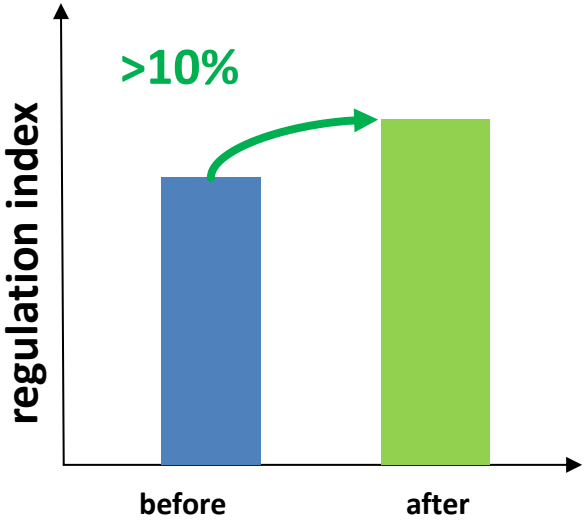
aquaSpin

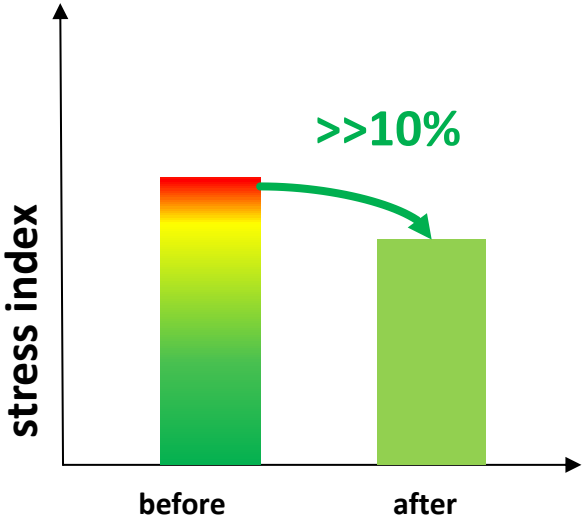
For example, the change in the stress index:



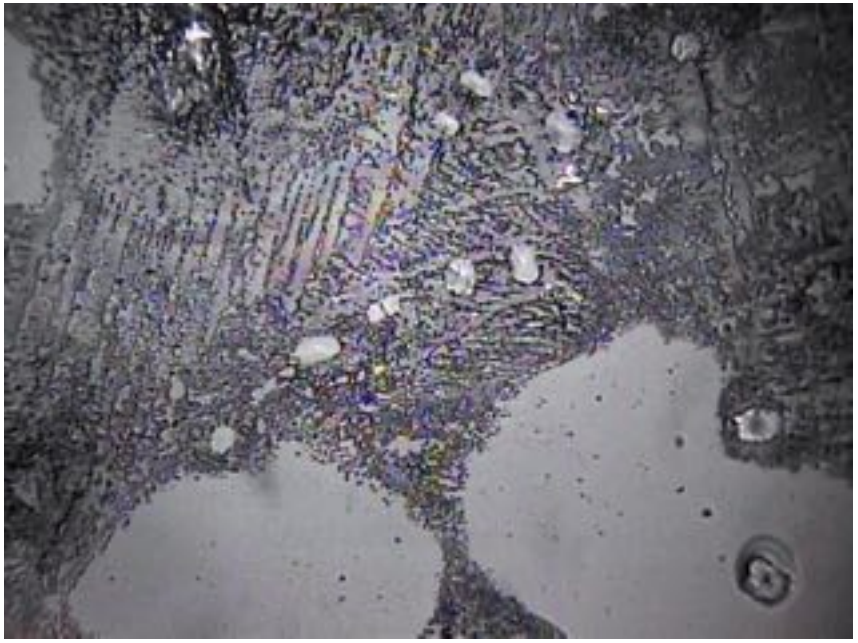
Results of the study



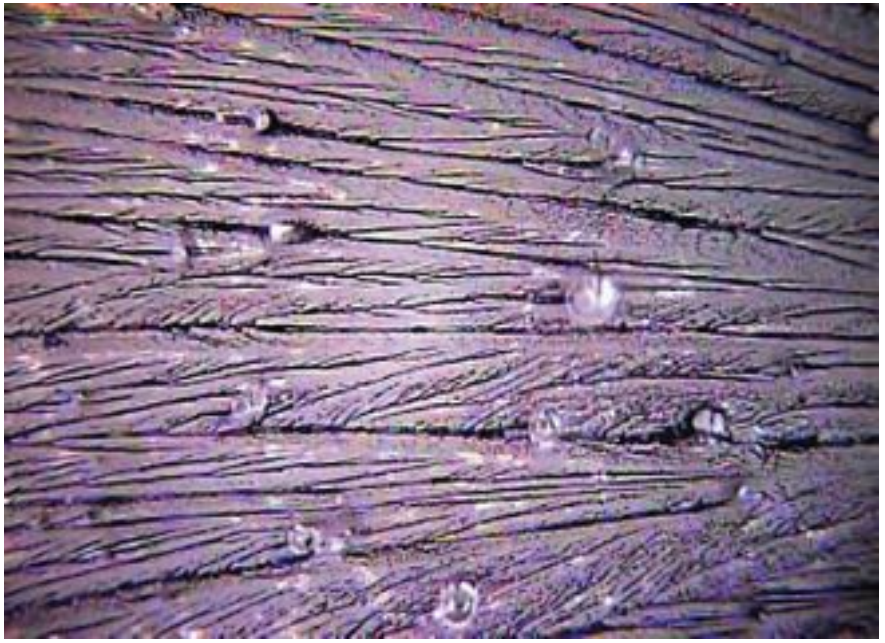




Chrystal analysis by Hagalis institute for quality test

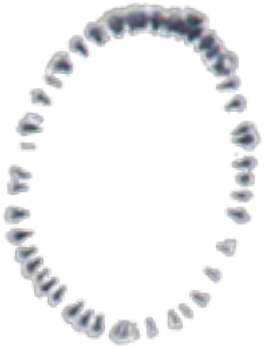


Neutral sample city tap water,
400-fold Magnification,
without aquaSpin



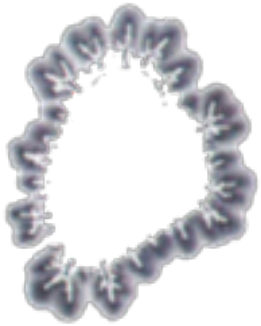
Sample of water treated by
the aquaSpin technology

Kirlian Photography



Kirlian Photography
of not activated water

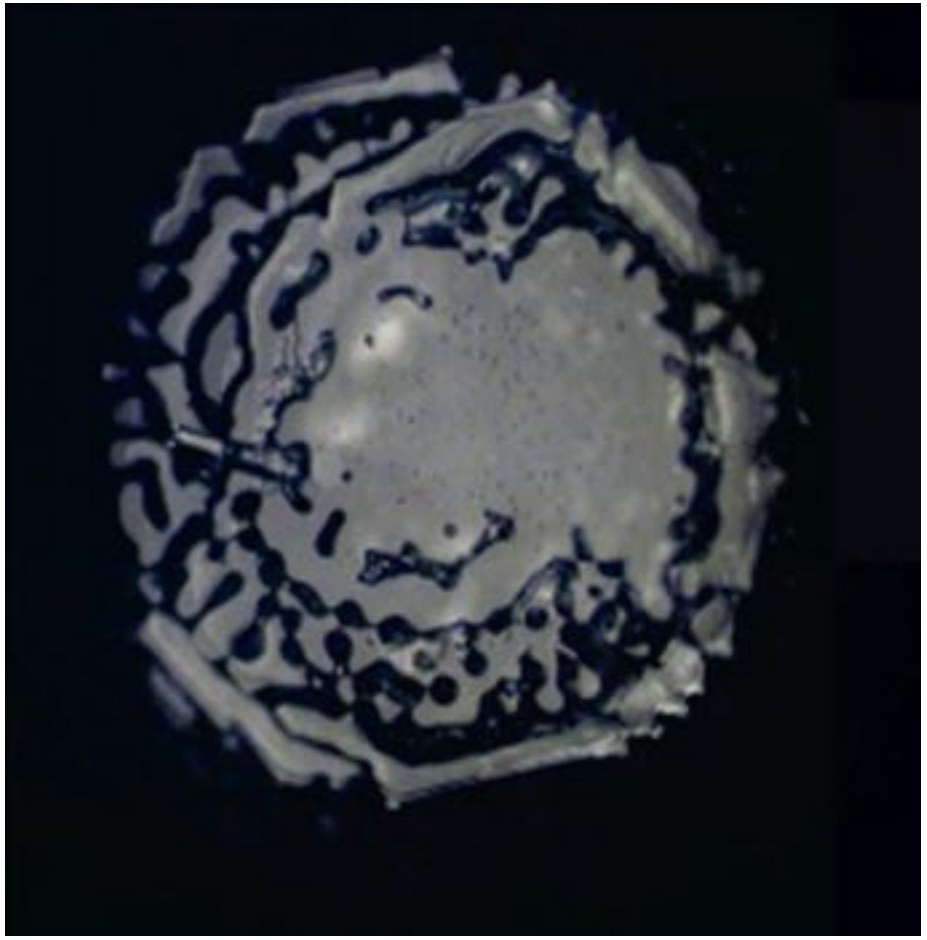
Kirlian Photography
of activated water (harmonic radiance)



Kirlian Photography
of chemical cleaning agent
(aggressive radiance)

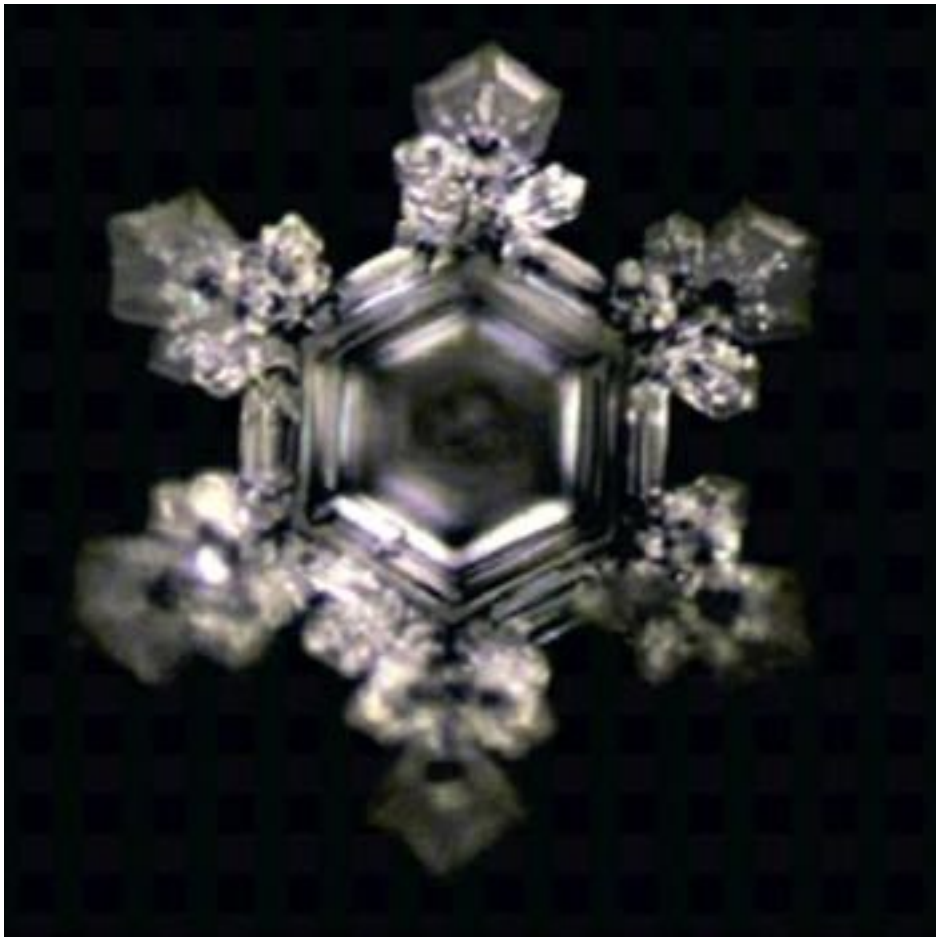
Kirlian Photography
of healthy blood
similar to the radiance of activated water

Water quality made visible



Crystallized water from a city tap water under a microscope

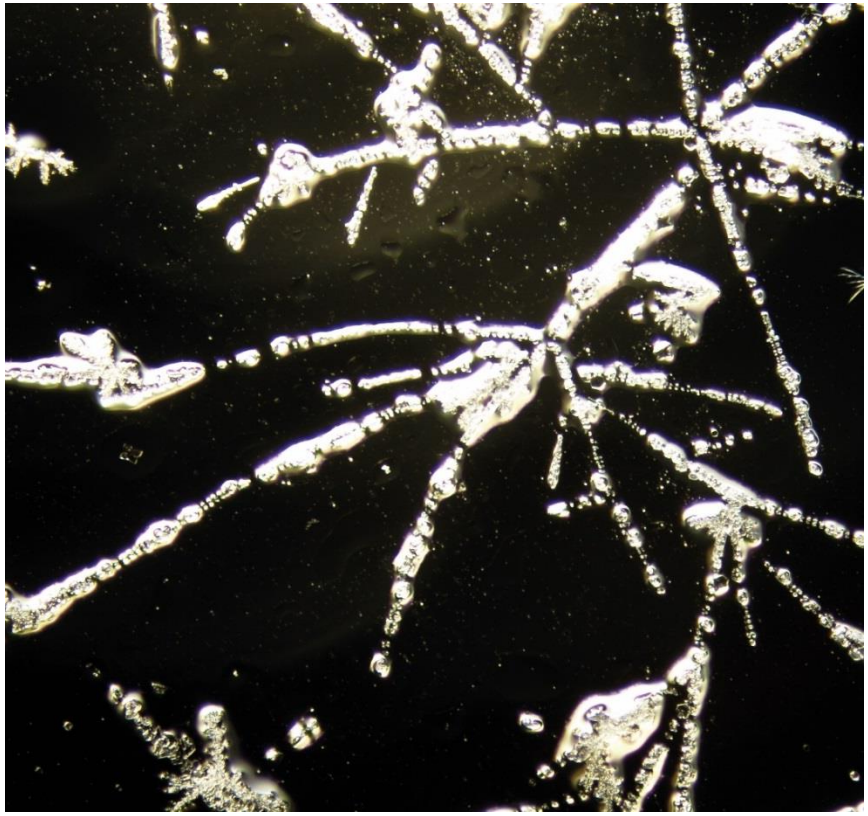
- shapeless and powerless
- no vitality



Crystallized water after the contact with the aquaSpin technology

- geometric
- harmonic and powerful

Crystalline depiction of a tomato‘s cell water



soyana
Natürlich – Liebevoll – Kreativ
Eine neue Welt von Lebensqualität

Ojas
Energie fürs Leben
www.OjasHarmony.com

READING RECOMMEN-DATION

Application in bakeries

left:
whole-grain bread
Baked with regular
tap water

right:
whole-grain bread
baked with aquaSpin
water

Effect in piping systems in the light of past experiences

before

after

Experiences with heating water

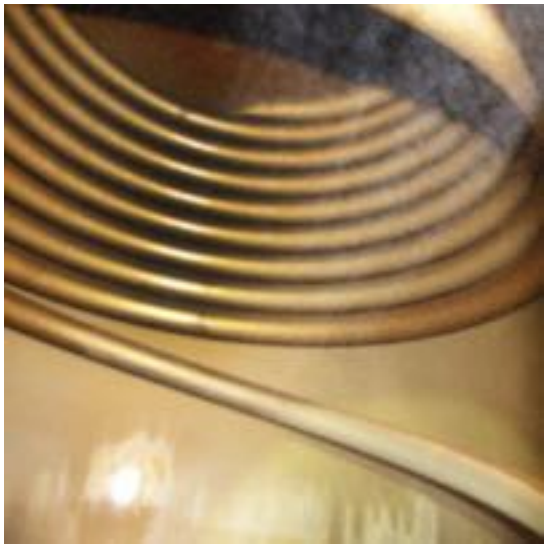
aquaSpin gives the water its vitality and self-cleaning power back

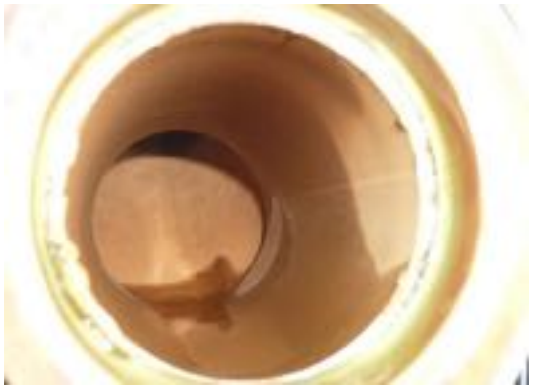
Application example boiler 1

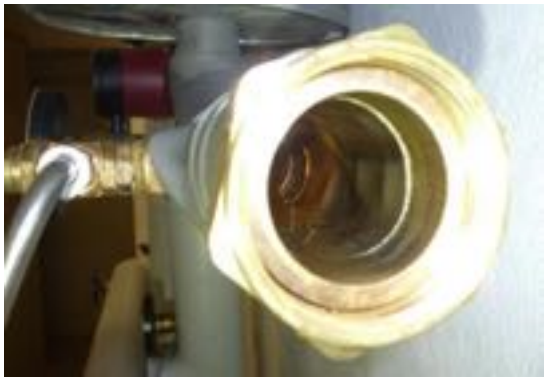
Hot water storage tank after the aquaSpin has been installed for 6 months, 30 degrees of hardness. **No deposits are present anymore.**

Application example boiler 2

Hot water storage tank after the aquaSpin has been installed for 5 months, 17 degrees of hardness (Munich). In 2014 took the last cleaning place. **No deposits are present anymore.**







Investigations in the horticulture about the effect of bio-resonances

At the university of applied sciences Erfurt investigations on the effect of bio-resonances and orgone-energies on horticultural and agricultural plants were carried out. In operation was a preceding model of the aquaSpin. The investigations were manly conducted at the university‘s open spaces. In the following, the findings are presented in short.

Red cabbage – test field university Erfurt

Red cabbage watered with regular tap water

Red cabbage watered with aquaSpin water

Lettuce– test field university of Erfurt

Lettuce watered with
regular tap water

Lettuce watered with
aquaSpin water

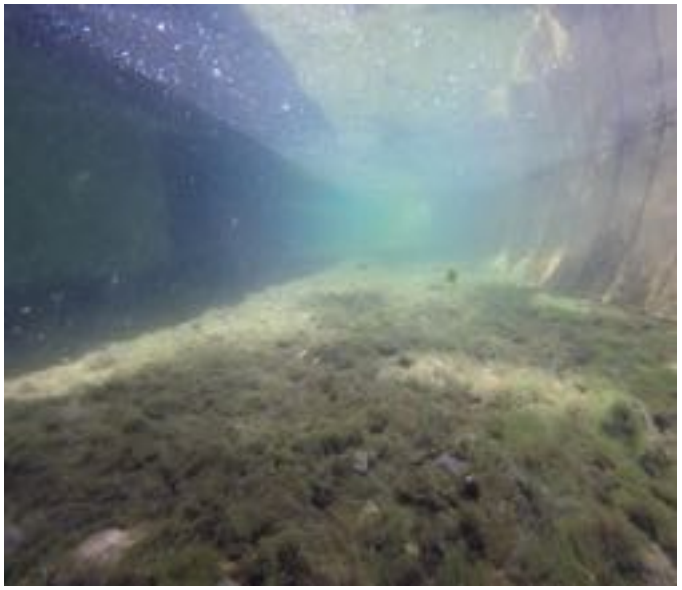

Gerste
Kontrolle
Saatgut unbehandelt
Wasser normal
untreated barley
Gerste
Weber
Saatgut bestrahlt
Wasser normal
treated barley

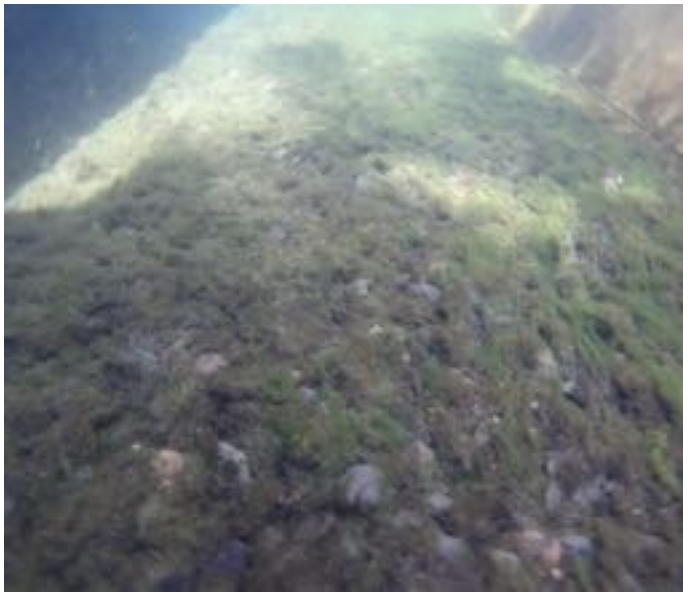
Experiments on lettuce in Israel

Heads of lettuce watered with regular tap water

Heads of lettuce watered with aquaSpin water

Experiences gained in the Siam Park in Tenerife





Application in the free nature

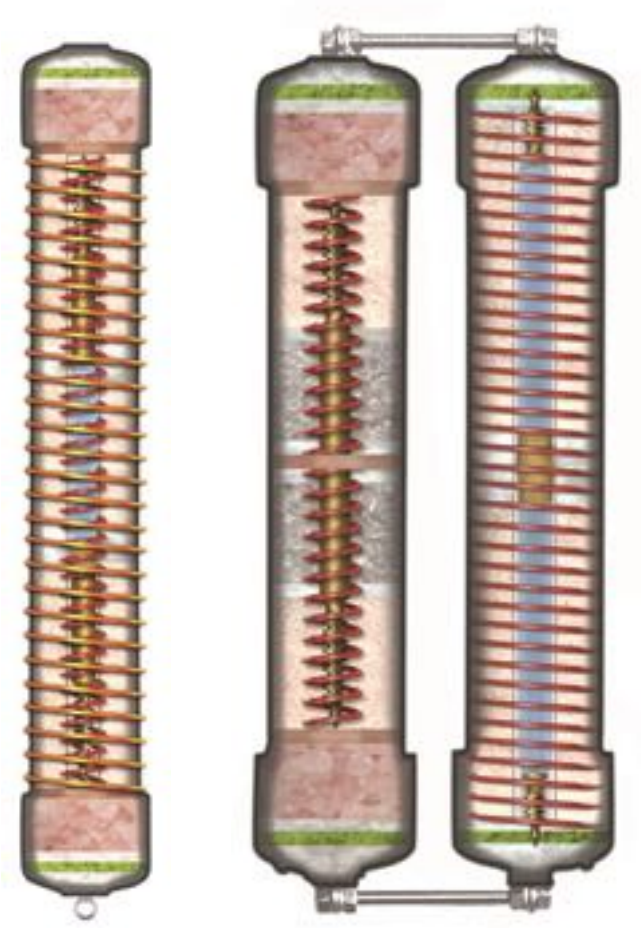
(1) Sea with algae strain. (2) Installation aquaSpin 1.5 inch. Processes are stimulated. Short-term deterioration due to increased algae growth. (3) Sharp decline of algae growth. Healthy ecosystem restored.

A perfect interplay in the agriculture

Slurry revitalizer and aquaSpin water activator can positively influence the ecosystem!

Agriculture – slurry-revitalizer

We need a healthy agriculture that orients itself towards natural and ecological processes and cycles. Our slurry-revitalizers and aquaSpin water activators achieve that animals and plants unite in a healthy cycle, as it was originally the case.



Effect on slurry in the light of past experience

The slurry-revitalizer is a multi-layered bio-energy accumulator promoting the aerobic rotting process of the slurry. Because of the special frequencies and information emitted by the slurry-revitalizer, the micro-organisms necessary for the rotting process are activated. This has the following effects:

- ✓ Homogenization of the slurry
- ✓ Reduced odor nuisance arising from the slurry
- ✓ Reduced ground water pollution
- ✓ Stimulation of soil and plants after the fertilizing with vitalized slurry
- ✓ Formation of humus
- ✓ Good plant compatibility

Certifications

of the activators (TÜV) as well as further certifications of the used components

Certificate ÜV Hessen (Technische Überwachung Hessen GmbH) Industry Service Department

Certificate oft he standard from taken components

Aquaspin from Ipsheim Germany, distributes drinking water systems worldwide. The systems are optimized and followers of the Weber Bioenergie systems. These systems have been established in Germany and worldwide for the past few years, and the individual components have been tested by DVGW, TZW Karlsruhe, Fresenius Institute and other locations.

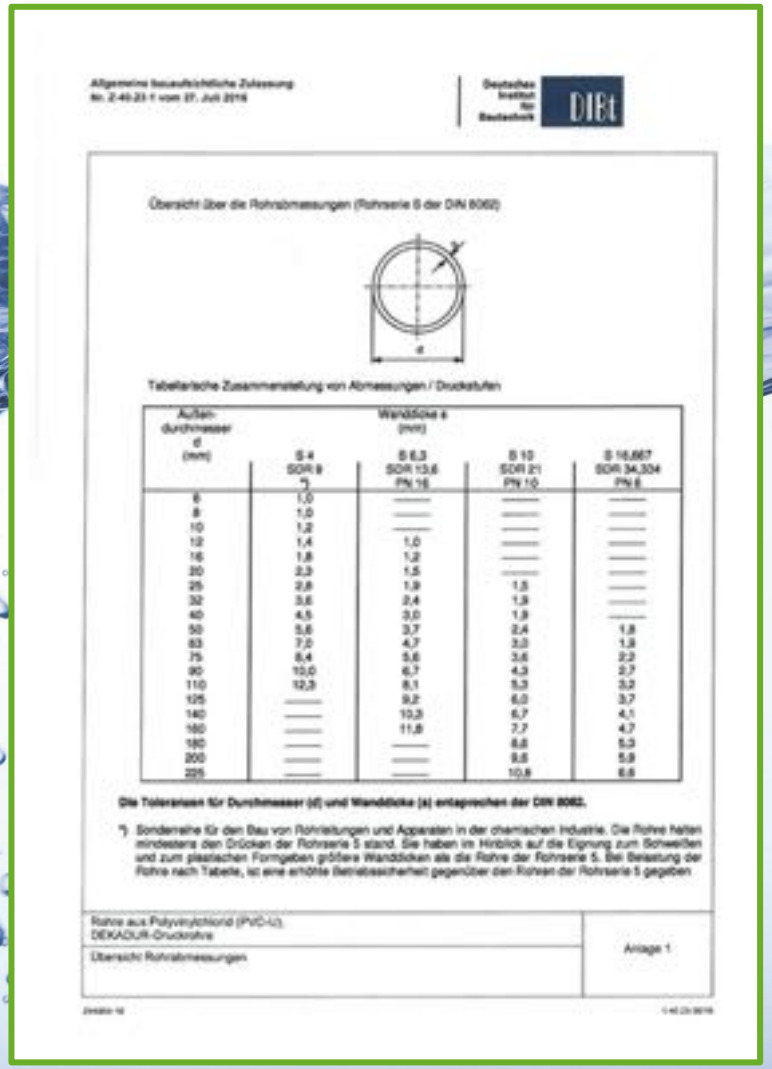
The Aquaspin company is the distributor for all Weber Bioenergie systems and technologies from 1. October 2015.

The following elements/components are applicable by German standards for the usage in the drinking water sector without any known negative consequences.

- Aquaspin water activator ½ inch PVC,
- Aquaspin water activator ¾ inch PVC,
- Aquaspin water activator 1 inch PVC,
- Aquaspin water activator 1 ½ inch PVC,
- Aquaspin water activator 2 inch PVC,
- Aquaspin water activator ½ inch stainless steel,
- Aquaspin water activator ¾ inch stainless steel,
- Aquaspin water activator 1 inch stainless steel,
- Aquaspin water activator 1 ½ inch stainless steel,
- Aquaspin water activator 2 inch stainless steel,
- Aquaspin water activator 3 inch stainless steel,
- Aquaspin water activator 4 inch stainless steel,
- Polyamid -6 bzw. -6.6, Farbe nature, Verwirbelungsschnecke PUM

Georg Fischer Piping Systems Ltd.

The PVC-U formulae used comply with the KTW recommendations of the Federal German Health Office. (multi-page document)



Allgemeine bauaufsichtliche Zulassung
Nr. Z-40.23-1 vom 27. Juli 2016

Deutsches Institut für Bautechnik DIBt

Übersicht über die Rohrabmessungen (Rohrserie S der DIN 8062)

Tabellarische Zusammenstellung von Abmessungen / Druckstufen

Außendurchmesser d (mm)	Wanddicke e (mm) S 4 SDR 9 *)	S 6,3 SDR 13,6 PN 16	S 10 SDR 21 PN 10	S 16,667 SDR 34,304 PN 6
6	1,0	—	—	—
8	1,0	—	—	—
10	1,2	—	—	—
12	1,4	1,0	—	—
16	1,8	1,2	—	—
20	2,3	1,5	—	—
25	2,8	1,9	1,5	—
32	3,6	2,4	1,9	—
40	4,5	3,0	1,9	—
50	5,6	3,7	2,4	1,8
63	7,0	4,7	3,0	1,9
75	8,4	5,6	3,6	2,2
90	10,0	6,7	4,3	2,7
110	12,3	8,1	5,3	3,2
125	—	9,2	6,0	3,7
140	—	10,3	6,7	4,1
160	—	11,8	7,7	4,7
180	—	—	8,6	5,3
200	—	—	9,6	5,9
225	—	—	10,8	6,6

Die Toleranzen für Durchmesser (d) und Wanddicke (e) entsprechen der DIN 8062.

*) Sonderreihe für den Bau von Rohrleitungen und Apparaten in der chemischen Industrie. Die Rohre halten mindestens den Drücken der Rohrserie S stand. Sie haben im Hinblick auf die Eignung zum Schweißen und zum plastischen Formgeben größere Wanddicken als die Rohre der Rohrserie S. Bei Belastung der Rohre nach Tabelle, ist eine erhöhte Betriebssicherheit gegenüber den Rohren der Rohrserie S gegeben

Rohre aus Polyvinylchlorid (PVC-U) DEKADUR-Druckrohre	Anlage 1
Übersicht Rohrabmessungen	

page 9

Deutsches Institut für Bautechnik DIBt

Allgemeine bauaufsichtliche Zulassung

Zulassungsnummer:
Z-40.23-1

Geltungsdauer
vom: 9. August 2016
bis: 9. August 2021

Antragsteller:
Georg Fischer DEKA GmbH
Kreuzstraße 22
35232 Dautphetal-Mornshausen

Zulassungsgegenstand:
Rohre aus Polyvinylchlorid (PVC-U),
DEKADUR-Druckrohre

Der oben genannte Zulassungsgegenstand wird hiermit allgemein bauaufsichtlich zugelassen.
Diese allgemeine bauaufsichtliche Zulassung umfasst acht Seiten und vier Anlagen mit sieben Seiten.
Der Gegenstand ist erstmals am 15. April 1995 allgemein bauaufsichtlich zugelassen worden.

DIBt

page 1

TZW Technologiezentrum Wasser

The fittings which are made of the material PVC 10 comply with the requirements of the KTW corporate principles of the Federal Environment Agency

TZW
Prüfstelle Wasser

PRÜFZEUGNIS (V)

über die Untersuchung von "Fittings (Winkel 90°) Ø 1 ¼ aus Werkstoff PVC 10" gemäß der KTW-Leitlinie des Umweltbundesamtes (UBA)

Hersteller:	Georg Fischer Rohrleitungssysteme AG, Schaffhausen, Schweiz
Art der Proben:	PVC-U-Qualität
Bezeichnung der Proben:	"Fittings (Winkel 90°) Ø 1 ¼ aus Werkstoff PVC 10"
Fertigungsgruppe:	(Ø 1 ¼ ") [PVC 10]
Eingang der Proben:	15.06.2007
Probenehmer:	Auftraggeber
TZW-Az.:	KR 240/12

Untersuchungsergebnisse

1. Rezeptur: wurde unter KC 664/12 vorgelegt und überprüft
2. Probenmaterial
   - Stabilisatorsystem: Sn-Stabilisator — gemessen: 0,3 Gew.% Sn
   - VC-Gehalt: Richtwert: ≤ 1,0 mg VC/kg Probe — gemessen: < 0,1 mg VC/kg Probe
3. Migrationstest:

Kaltwasser 23°C	1. – 3. Tag	4. – 6. Tag	7. – 9. Tag	Richtwert für 3. Extraktion
Klarheit, Färbung, Geruch, Geschmack, Schaumbildung	nnb	nnb	nnb	nicht nennenswert beeinflusst
C-Abgabe [mg C/m²d]	0,6	0,4	< 0,4	≤ 12,5
Cl_2-Zehrung [mg Cl_2/m²d]	5,4	3,2	1,3	

Sn-Abgabe [mg/m²d]	Richtwert eingehalten	Trinkwasser-SML-Werte nach BedarfsgegenständeV

3 Rezepturbestandteile, die der Geheimhaltung unterliegen	Richtwert eingehalten	Trinkwasser-SML-Werte nach BedarfsgegenständeV

Die untersuchten Proben "Fittings (Winkel 90°) Ø 1 ¼ aus Werkstoff PVC 10" entsprechen den Anforderungen der KTW-Leitlinie des Umweltbundesamtes (Bgesundhbl. 2005) im Bereich Ausrüstungsgegenstände.

Anmerkung:
Dieses Prüfzeugnis basiert auf der Erstprüfung (TZW-Az.: KA 141/A/07) vom 07.08.2007.
Die Gültigkeit dieses Prüfzeugnisses richtet sich nach andernorts festgelegten Bestimmungen. Sie endet jedoch spätestens am 06.08.2017.

Karlsruhe, den 16.10.2012

Dr. J. Klinger / i.A. Dr.-Ing. R. Turkovic
Leiter der Prüfstelle

Das Technologiezentrum Wasser ist eine Einrichtung des DVGW-Deutscher Verein des Gas- und Wasserfaches e.V. – Technisch-wissenschaftl. Verein –

Technologiezentrum Wasser
Prüfstelle Wasser
Wasserwerkstraße 4
76137 Karlsruhe, Germany

T +49-(0)721 9 21 83-0
F +49-(0)721 3 21 09
pruefstelle@tzw.de, www.tzw.de

DVGW Deutscher Verein des Gas- und Wasserfaches e.V.

Microbiological testing of plastic PVC-U pipes based on CaZn stabilizers for drinking water distribution.

DVGW CERT

DVGW-Baumusterprüfzertifikat

DVGW type examination certificate

DW-8121AT2023
Registriernummer
registration number

Anwendungsbereich *field of application*	Produkte der Wasserversorgung *products of water supply*
Zertifikatinhaber *owner of certificate*	Georg Fischer DEKA GmbH Kreuzstr. 22, D-35232 Dautphetal
Vertreiber *distributor*	Georg Fischer DEKA GmbH Kreuzstr. 22, D-35232 Dautphetal
Produktart *product category*	Kunststoff-Druckrohre für Versorgungsleitungen: PVC-U für die Wasserversorgung, Fert.-Gr. 11 (8121)
Produktbezeichnung *product description*	Kunststoffrohre aus PVC-U auf Basis von CaZn-Stabilisatoren für die Trinkwasserverteilung
Modell *model*	DEKADUR
Prüfberichte *test reports*	Kontrollprüfung Labor: K 15 1550.1 vom 05.11.2015 (MPD) Mechanikprüfung: K 09 1706.1 vom 08.04.2010 (MPD) Mechanikprüfung: K 06 0955.4 u. Erg. vom 29.08.2006 (MPD) KTW-Prüfung: KR 173/15 vom 25.08.2015 (TZW) Mikrobiologische Prüfung: MO 040/14 vom 06.03.2014 (TZW)
Prüfgrundlagen *test basis*	DVGW GW 335-A1 (01.06.2003) DVGW GW 335-A1/K (01.03.2006) UBA KTW (07.10.2008) DVGW W 270 (01.11.2007)
Ablaufdatum / AZ *date of expiry / file no.*	12.01.2021 / 16-0019-WNV

30.03.2016 Wg A-1/2
Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle
date, issued by, sheet, head of certification body

DVGW CERT GmbH ist von der DAkkS nach DIN EN ISO/IEC 17065:2013 akkreditierte Stelle für die Zertifizierung von Produkten der Energie- und Wasserversorgung.

DVGW CERT GmbH is an accredited body by DAkkS according to DIN EN ISO/IEC 17065:2013 for certification of products for energy and water supply industry.

DAkkS
Deutsche Akkreditierungsstelle
D-ZE-16038-01-00

DVGW CERT GmbH
Zertifizierungsstelle
Josef-Wirmer-Str. 1-3
53123 Bonn
Tel. +49 228 91 88 - 888
Fax +49 228 91 88 - 993
www.dvgw-cert.com
info@dvgw-cert.com

Testing of Tangit PVC adhesives

TZW
Prüfstelle Wasser

PRÜFZEUGNIS

über die Untersuchung von Klebstoff für PVC-U Tangit (VC 3815) gemäß der KTW-Leitlinie des Umweltbundesamtes (UBA)

Überwachungszeitraum:	Zulassungserteilung 2015
Hersteller des Klebstoffs:	Henkel AG & Co. KGaA, 40191 Düsseldorf
Bezeichnung des Klebstoffs:	Tangit PVC-U (VC 3815)
Verwendung:	zugelassene PVC-U-Systeme
Eingang der Proben:	08.07.2015
Probenehmer:	Auftraggeber
TZW-Az.:	KR 189/15

Untersuchungsergebnisse

1. Rezeptur: wurde unter KC 267/15 eingelegt und überprüft
2. Schriftliche Klebeanleitung (Klebstoffhersteller): wurde vorgelegt und überprüft
3. Werkstoffnachweis nach DVGW-Arbeitsblatt W 270: bewertet
4. Migrationstest:

Kaltwasser 23°C	1. – 3. Tag	4. – 6. Tag	7. – 9. Tag	Richtwert für 3. Extraktion
Klarheit, Färbung, Geruch, Geschmack, Schaumbildung	4	2	nnb	nicht nennenswert beeinflusst
C-Abgabe [mg C/m²d]	118	98	69	≤ 125

3 Rezepturbestandteile, die der Überwachung unterliegen	Richtwert eingehalten	TrinkwasserVO, Werte nach BedarfsgegenständeV
1 Rezepturbestandteil, der der Überwachung unterliegt	Richtwert eingehalten	UBA, Werte nach BedarfsgegenständeV

Der geprüfte Klebstoff für PVC-U Tangit (VC 3815) entspricht den Anforderungen der KTW-Leitlinie des Umweltbundesamtes (UBA) (Bundesgesundheitsblatt aktuelle Fassung) im Bereich Dichtungen für Rohre mit DN < 65 mm (Hausinstallation).

Anmerkung:
Die Gültigkeit dieses Prüfzeugnisses richtet sich nach anderenorts festgelegten Bestimmungen. Sie endet jedoch spätestens 5 Jahre nach Ausstellungsdatum.

Karlsruhe, den 13.10.2015

Dr. J. Klinger i.V.A. Dr.-Ing. R. Turkovic
Leiter der Prüfstelle

Die Veröffentlichung des Prüfzeugnisses – vollständig oder in Auszügen – ist ohne ausdrückliche Genehmigung von seiten der Prüfstelle nicht gestattet

eurofins | Expertises Environnementales

Laboratoire habilité par le Ministère chargé de la santé en application l'article R*.1321-42 du code de la santé publique

CERTIFICAT DE CONFORMITE AUX LISTES POSITIVES DE REFERENCE

Certificate of conformity to positive lists

Conformément à l'arrêté du 29 mai 1997 modifié, aux circulaires du Ministère chargé de la santé DGS/VD4 n° 99/217 du 12 avril 1999 et DGS/VD4 n° 2000/232 du 27 avril 2000 et à l'avis paru au Journal Officiel du 24 février 2012 (texte n°118)

Coordonnées du demandeur : *Contact details of the ACS owner*	Nom(s) commercial(aux) du produit fini : *Commercial name(s) of the finished product*
HENKEL AG & Co. KGaA Henkelstrasse 67 40589 DÜSSELDORF Allemagne	Tangit PVC-U Plus (VC3815)

Type de produit fini / *Type of finished product* :

- ☐ Lubrifiant / *Lubricant*
- ☐ Graisse / *Grease*
- ■ Colle / *Glue*
- ☐ Autre / *Other*
- ☐ Ajout ou Adjuvant organique pour ciment / *Organic cement admixture*
- ☐ Revêtement à base de ciment / *Cementitious coating*
- ☐ Joint de diamètre inférieur à 63 mm / *Seal, gasket, o-ring with a diameter lower than 63 mm*

Commentaires / *Comments* :
Couleur du produit / *Product color* : Naturel / *Natural*

N° de dossier attribué par le laboratoire habilité / *File reference* : 16 CLP NY 016

Formulation chimique / *Chemical formulation* :

La formulation chimique vérifiée par le laboratoire est conforme aux listes positives de référence. Ce certificat est établi sous réserve de la non-modification de la composition chimique du produit et des préparations commerciales qui le constituent. Il peut par ailleurs être remis en cause par l'évolution des listes positives.
The chemical formulation checked by the laboratory is conform to the positive lists. This certificate is issued provided that chemical composition of the product and commercial preparations that constitute it stay unmodified. It can also be reconsidered by the positive lists evolution.

Remarque / *Remark* : /

Attestation délivrée par / *Certificate issued by* :
Clémence Taffoireau
Chef de Service / Material Department Manager
Signature :

A la date du / Date of issue : 01 avril 2016
Date d'expiration du CLP / Expiry date : 01 avril 2021

Commentaires / Comments : /

Eurofins Expertises Environnementales
SAS au capital de 71829 € RCS Nancy 751 606 122 TVA FR 25 751 606 122
Siège social : Rue Lucien Cuenot site Saint Jacques II BP 41003 54521 MAXEVILLE cedex – T 33 (0) 3 83 18 90 00 – F 33 (0) 3 83 95 48 07

Référence : T-ASP-F026403 — Version : 11.1 — Date de publication : 07.10.2015

Certificates

Manufacturer declaration about the DIN/DVGW certification marks and ordinance on the general conditions for water supplies (AVB-WasserV) in Germany in systems and equipment for water treatment.

Connection of DIN/DVGW untested water treatment systems to the public water supply system.

The rights and obligations of the water supply companies as well as their customers are regulated in the "Ordinance on the General Terms and Conditions for Water Supplies" (AVBWasserV).

In this ordinance it is required in § 12 paragraph 4 a) "requirements for materials and devices" that "only materials and devices may be used which are in accordance with recognized rules of technology." In addition, it can be presumed with materials and devices that show a mark of a recognized testing body (e.g. DIN/DVGW-, DVGW- or GS mark) that the generally recognized rules of technology are observed.

In § 12 paragraph 4 b) it is stated that: "Paragraph 4, does not specify as mandatory that materials and devices solely are used that show the mark of a recognized testing body. The person connected also therefore has the possibility to use other materials and devices." This applies where proof is given that devices or materials meet the safety requirements without the given inspecting authority marks. These requirements for food safety (LMBG, KTW recommendations) and fitness for use must be documented by the distributing company where demanded.

The fitter therefore does not have the right to refuse water treatment plant simply because it does not display a mark from a recognized testing body. The installation of devices without a certification mark has to be permitted for the simple reason that no approval procedure is prescribed by law for water treatment devices.

As the water supply company is obliged to provide all its customers with clean drinking water, it has the right to inspect the domestic installations in individual cases. However, its power of influence on a domestic installation is limited to taking action where negative repercussions for the drinking water network may be expected as a result of its condition.

The person owning the connection to the house is essentially, with respect to his right of ownership, free in the choice of his installed fittings, and thus also of his water treatment devices.

He solely has the obligation to avoid disruption to the public water supply equipment or to that of other users (Administrative Court Freiburg, 12 June 1990, Ref. No.: 6 K 195/89).

This obligation is fully met by the fitting of appropriate safety mechanisms against backflow. For this purpose an appropriate check valves, which prevent backflow of the water in conjunction with tube aerators of the construction shape C, D or E, must be fitted after the water meter but before the equipment in accordance with DIN 1988 Part 4 and DIN EN 1717. Should no tube aerators be present on the premises, a backflow preventer must be installed in place of the check valve. Should non-certified water treatment plant be connected to a proprietary water supply (e.g. a spring), the installation of the above-mentioned safety mechanisms is not necessary.

DIN/DVGW certification marks certainly represent a certain state-of-the-art technology which is of particular importance for installations in Germany. While certification marks of similar associations are also issued in Austria and Switzerland based on comparable criteria, there are no such regulations in other European countries. The fact that thousands of items of water treatment plant (water softeners, water dispensers etc.) have been smoothly operating for decades without a DVGW certification mark indicates that this mark is not necessarily the be-all and end-all.

The regeneration of ion exchanger systems (softening, nitrate reduction) should take place every 4 days or two times a week using appropriate adjustments based on the DVGW regulations in order to be able to consistently receive clean drinking water. Any necessary maintenance work and filter replacement in water treatment plant must be carried out at least every 6 months.

Plant offered by us which does not have the DVGW certification mark is also made up of materials which meet the generally recognized state-of-the-art technology so that the above-mentioned requirements are met when observing our installation and operating instructions.

Declaration stainless steel

Certificate

Declaration by the manufacturer of the different stainless steel materials
Use of stainless steel, material for piping for drinking water
Many different materials

The variety of different materials is in principle enormous for stainless steel. The types of stainless steel can be divided into categories.

The main types are:

- **Austenitic chrome-nickel steels**: from the long-term resistance point of view, stainless steel is certainly the material to choose if steel is used as piping material today in domestic drinking water installations. Stainless steel has the reputation of being indestructible due to various very successful fields of application. Often, the end user is not totally aware of the fact that they need always an optimally chosen material for a particular purpose.
- **Ferritic chrome-steels**: they do not play any part in drinking water and domestic installations and should thus not be examined in detail here. The austenitic steels, whose main alloy components are chrome and nickel, can be roughly divided into the following types:
  - without additional molybdenum additive.
  - with molybdenum additive.

Molybdenum is a metal that generally further improves the corrosion resistance of stainless steel with increasing concentration.

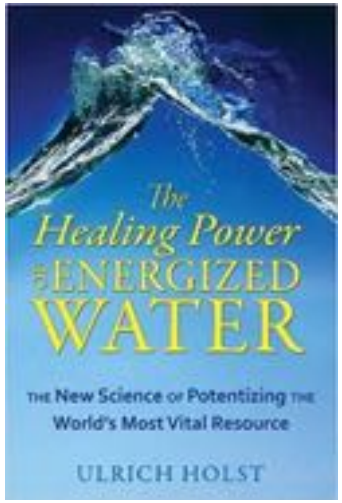
The materials are in the end clearly defined in their composition by a material number. The opportunity to choose between the various steels does already include the information that there have to be different application limits for each single material. But also, within a material number, the corrosion resistance can be improved or also worsened by external influences.

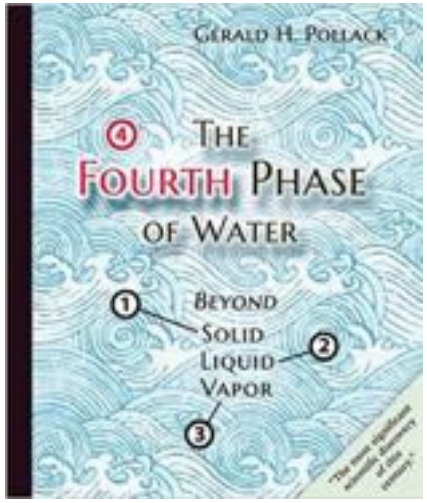
Materials for drinking water domestic installations

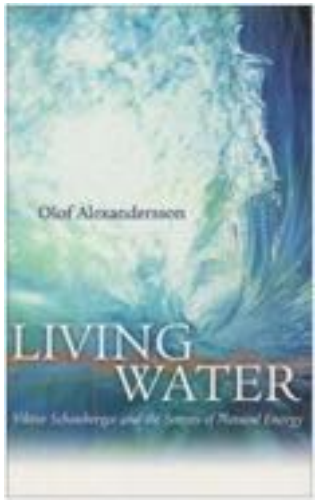
Both the materials that dominate in drinking water domestic installations, 1.4401 and 1.4571, belong to the category of chrome nickel steels with additional molybdenum additive. In principle, each builder is of course totally free in the selection of his materials. But in Germany a DVGW-certified product guarantees the choice of a secure construction according to the recognised state-of-the-art technology. Piping which is made of stainless steels for drinking water domestic installations may only be made from molybdenum alloyed materials since the November 2003 version of the DVGW-worksheet GW 541. Approved without special verification are the materials 1.4401, 1.4571, 1.4404, 1.4436 and 1.4435. By selecting a DVGW-certified stainless steel pipe, builder, planner and installer have automatically acquired a top-quality material which fully meets the usual requirements.

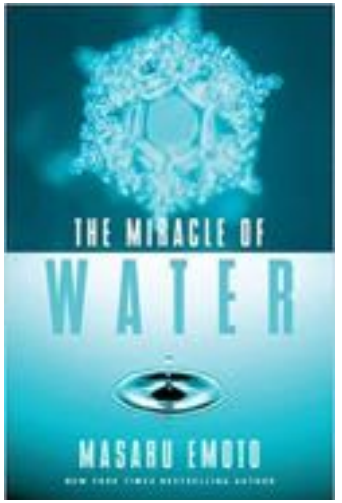
We only use the molybdenum alloyed material 1.4571 which is DVGW-certified according to DVGW-worksheet GW 541 from November 2003.

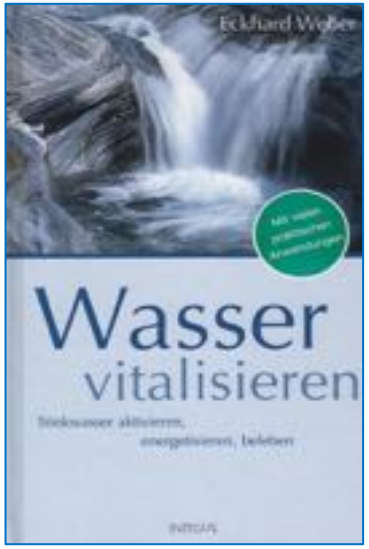
Reading guide

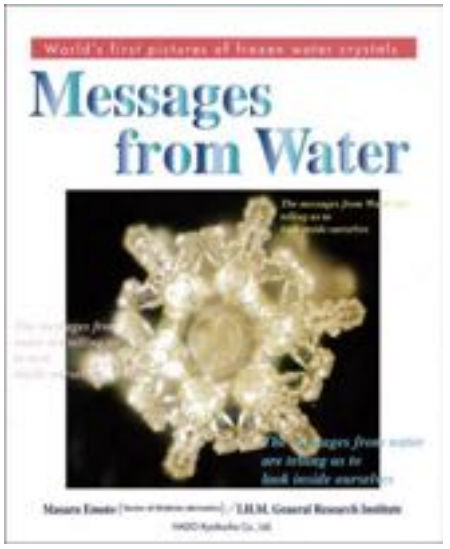












MANY THANKS

for your attention