



Graubner

Richter Spielgeräte GmbH



Graubner Play Stations for Developing the Senses

The equipment in this catalogue was created to help people of all ages discover and rediscover their senses – sight, hearing, touch and smell. By enjoying these play stations for the senses either individually or collectively, one can learn to fully appreciate those senses and marvel at the capabilities of the human body.

In a modern, virtual world it is vital that we pay special attention to the development of perceptive skills and senses of children. As children lose natural opportunities for play, there is a need to stimulate the link between sensory perception and the natural world by offering environments wherein children can develop their abilities and test their powers in relation to the world around them.

These sensory experiences, encountered through play, experience or discovery, have importance for people of all ages and abilities. Adults facing degeneration of faculties due to under stimulation also need a challenge to the senses. In addition, they offer excellent opportunities for interaction between generations and between children of different abilities.

We are not experts in disability issues but our experience with these play stations has led us to believe that the sensory promotion that they offer can be particularly important in this field. Alone or accompanied by a carer, new sensations can be experienced, and the chance to reach the full potential for those with special perception is attainable.

Promotion of the senses is also important when they are fading with age. For example, scent can arouse memories as can sounds making access to this type of equipment an important part of retaining quality of life in older years.

The idea of illustrating these phenomena in an experimental zone for developing the senses was conceptualised by the German writer, sociologist, architect, philosopher and artist Hugo Kükelhaus (1900 -1984). Following this collaboration with Wolfram Graubner, in a carpentry workshop in the Black Forest, led to further development of the first play stations for public areas.

In 2005, after many years working together in the distribution of Graubner equipment throughout the world, Richter Spielgeräte acquired manufacturing rights and continues to develop Play stations for Developing the Senses.

Frasdorf, November 2022

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Frage
nach dem Durch-
gang;

Wo ist der
"rote Faden",
der alles zū-
sammen hält?

Antwort:

Der rote Faden
ist man selbst.

Es ist der Organismus als
Ganzes der die Organe zū-
sammen hält. Solange ich den
"roten Faden" statt in mir selbst,
woanders suche, lebe ich nur brüch-
stückhaft mit mir selbst...

A question emerging after the passage: Where is the central thread with which everything is held together? Answer: You yourself are the central thread. It is the organism as a whole which holds together the organs. As long as I don't search for the central thread in myself but someplace else, I live only partly with myself...

Hugo Kükelhaus

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Explanation of following icons



Videos

You can find videos on our website for the equipment marked with this icon.



Young People

The equipment marked with this icon is also especially suited for young people.



Inclusion

The equipment marked with this symbol is barrier-free accessible and especially suitable for integrative playspaces.

We love the Nature!
The FSC® certified paper Edixion Offset with a high environmental profile was used for this catalogue.



Planning information

Creating environmental structures for people places high demands especially on the planners. Because the *graubner* play stations are not play equipment in the usual sense, there are the following things which should be observed.

For the assessment of the acoustic effects the following 3 ranges apply:

- strong,
- medium,
- soft.

Notes which are loud, high, hard or shrill are considered more disturbing than deep, quiet, soft and gentle notes.

For assessment of vulnerability to vandalism we have chosen the following terms:

- not vulnerable (comparable to playground durability),
- slightly vulnerable (depending on location, particularly in areas which are obscured from view),
- vulnerable (material necessary for function, e.g. glass in the optical play stations).

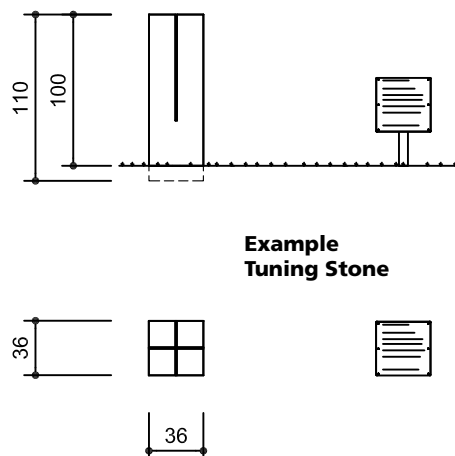
For assessment of planning according to DIN EN 1176 we have chosen the following terms:

- standard-compliant (by installation of the play stations the DIN EN 1176 guidelines apply)
- has been completed (TÜV certificate does exist)
- not necessary (as not within the scope of the standard)

Notes on installation:

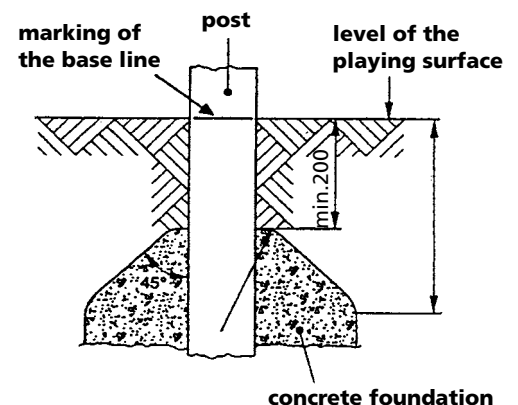
For assembly of our play stations the following measurements for the top edge of the foundation are valid:

- Experience stations made of wood: 20 cm under the ground level area
- Experience stations made of metal: 10 - 20 cm under the ground level area (exceptions: Conference and Echo Game 20 cm)
- Experience stations made of stone: 10 cm under the ground level area
- Experience stations with high construction demands 40 cm under the ground level area



For play stations which are covered by DIN EN 1176, the foundations must be constructed according to the requirements of the standard (DIN EN 1176, 4.2.14 Foundations), as a rule 40 cm under the ground level area, or for conical shaped models 20 cm under the ground level area, see sketch.

Please refer to our installation instructions for exact installation heights.



Notes regarding the suitability for indoors/outdoors:

If play stations are to be installed indoors it is necessary to check if the equipment can be left unmodified. This is possible for those which are only installed to a depth of 10 cm. If a special equipment height or a special foot construction is desired, this should be communicated to us at the time of preparing the tender. The equipment will then be manufactured as a special design (identified with an "S" in front of the order number).

Notes on wheelchair accessibility of play situations:

If play stations are to be used by people in wheelchairs, the height of some play stations needs to be adjusted.

We use the following reference dimensions for wheelchair users:

eye height: 125 cm.

Of course, eye height can be varied from 120 - 140 cm for different sized wheelchair users.

Notes on necessity for explanation boards:

Explanation boards on support posts are included in delivery for some play stations where the phenomenon is not apparent at first glance. For the remaining play stations we offer explanation boards at an additional charge.

For assessment of supervision we have chosen the following terms:

- absolutely necessary
(the Stone Pendulum may only be delivered together with an anchor chain to limit the swinging movements if it is to be installed in an unsupervised area. Supervisors can release this chain with a key),
- necessary,
- recommended,
- not necessary.

Alongside our production craftspeople, our team in Frasdorf is made up of landscape architects, architects and technicians whose many years of experience in development, construction and planning make it possible for us to playfully demonstrate natural phenomenon. We would be pleased to advise you on the planning of fields of play and experience according to Hugo Kükelhaus as well as provide support with any technical questions.

And to summarise:

"Room to play, room to play:

That is the secret."

Hugo Kükelhaus

Quality Criteria

For additional explanations of the quality criteria please refer to our price list.



Peeled white

Palisades peeled white means that bark, cambium and sapwood are removed, the natural shape of the trunk is preserved and can be experienced



Bevel cut

Vertical stand posts with bevelled end grain section as constructive wood preservation measure



Perforated

The earth / air zone of the wood is perforated by numerous small bore holes to ensure that the impregnating agent penetrates this particularly endangered zone



Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Claddings

Claddings made of mountain larch (4 – 5 cm). Peeled white by hand, natural tree surface remains tangible and perceptible



Tongue and groove

Tongue and groove planks made of 4 cm solid wood, highly resilient, no trickling of dust / sand, protection against direct rain



Laminated wood beams

Laminated wood beams made of non-impregnated larch, glued according to EN 14080:2013; for very large timber cross-sections; comparatively low shrinkage, almost completely free of cracks



Hardwood rungs

Climbing rungs made of hardwood (ash) Ø 4.2 cm, milled and mortised, secured against twisting, easy to grip and not cold for children to touch



Plywood

Plywood made of mountain larch, three-layer (3 cm) or five-layer (4 cm). High dimensional stability, waterproof, glued according to DIN EN 13353:2011



One-piece construction

Total construction of the slide made of 2 mm stainless steel, drawn in box form, surface glass bead blasted, without welding seam between sliding surface and side cheek



Swing seat

Ergonomically shaped swing seat made of rubber with soft shock absorbing edge. Durable due to strong profiled steel insert



Pendulum seat

Pendulum seat with a large rubber surface. Soft, protective edge and steel insert



Impact absorbing

The anti-slip swing platform is covered by a special tyre-like element for impact absorption



Richter Hercules type rope

Richter Hercules type rope, a combination of galvanised six-strand steel cables and polyester yarn, diameter > 20 mm, laid and glued with very good abrasion resistance, strong sheathing even in the case of damage by puncturing



Hercules rope

Hercules rope, for spliced net connections. A compound of steel rope for the core and polyester or polyamide yarn for the sheath. High abrasion resistance, 4 or 6 strands



Aluminium rope pressing

Aluminium rope pressing, cylindrically pressed, with rounded ends



S-connectors

S-connectors Ø 8.1 mm, made of high-quality stainless steel, rounded



Swing joint

Drop-forged, hot-dip galvanised swing joint with sintered bush and integrated swivel



Universal joint

Drop-forged, hot-dip galvanised universal joint, consists of two sintered bushes, for free swinging in any direction



Rotating rope connection

Rotatable fitting without dangerous openings, with sintered bush with integrated swivel to ensure the rope untwists



Rope connection fixed

Fixed rope connection without dangerous openings. Screw connection adjustable and countersunk in the wood



Rope connection with joint

Close-fitting connection with joint, without dangerous openings, with sintered bush and adjustable screw connection



Ball joint rope connection

Close-fitting rope connection with ball joint, without dangerous openings for free swinging in any direction, rotatable suspension with combination of plain bearings and roller bearings, adjustable screw connection



Double rope connection

Connection for complicated swing and swivel motion



Profiled washer

Profiled washer for covering protruding screw heads according to standard, improved pressure distribution and protection against water. Impedes loosening the bolt



Adjustable

Adjustable two-piece bolt connection, easy to maintain, no projecting threads



Interlocking

Interlocking connection, with milled metal rings or serrated disc dowels, to reinforce the bolt connection under high loads transverse to the grain direction of the wood



End grain connector

End grain connector as special fitting for the adjustable connection of horizontal and vertical timber



Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



Steel reinforced rubber belt

Two-way steel reinforced rubber belt, total thickness approx. 11 mm, nearly indestructible



Large gated cableway

The large gated cableway covers the required safety distances. The cableway carriage comes to a smooth stop due to the difference in height of the gates and the cable slack



Tensioning device

Tensioning device enables one person to release and re-tension. Large winch radius and anti-kink function protect the rope



Cableway carriage

Our cableway carriage is designed as a sandwich construction. The „encapsulated“ running mechanism ensures quiet operation. The installation of the carriage is possible without dismantling the rope



Special steel cable

High density steel cable made of high-strength and hot-dip galvanized wire. Stable in length, durable and allows a smooth ride of the cableway carriage



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanized steel or stainless steel



HPL ground anchor

Foundation anchor made of phenol resin paper-based laminates



Cross beam made of steel

Swing cross beam made of hot-dip galvanized steel. Optimized swing geometry with rigid corner connections, thus allowing for smaller foundations and easier foundation covering



Chains

Chains made of hot-dip galvanized steel (1.4301 / 1.4571 at extra charge) welded before galvanising, short-linked, without eyelets on the connecting parts, easy to exchange and shorten



Stainless Chains

Chains made of steel with high corrosion resistance. Short-linked, without eyelets on the connecting parts, easily replaceable and simple shortening



Distance fitting

Screw connection with distance fitting to avoid entrapment areas



Relief cut

Targeted relief cut as an effective measure against cracks caused by drying. The cut defines the position of the stress equalization in the trunk and minimises natural cracking



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



Fastening of rope

Fastening of rope / net by means of adjustable chain fixation, easy assembly and maintenance

Richter Wood Quality Criteria for Larch Wood

Origin

Exclusive use of mountain larch (bot. larix decidua) from the Alps. It grows 800 - 1800 m above sea level and comes from sustainable forestries. Our wood is PEFC certified according to PEFC ST 2002:2020 and PEFC ST 2001:2020. This certificate confirms that the sawn and round timber that is produced and sawn comes from sustainable forestry. Further information can be viewed on our website.

According to an official ranking, larch is a moderately rot-resistant type of wood - considerably less durable than robinia.

However, there are different kinds of larch. The larch which we use for our production grows in the mountains at a height of more than 800 m above sea level. Therefore, it has considerably better wood physical properties (and thus should actually be called larix decidua montania).

This advantages of this mountain grown larch are considerable:

- Less resin galls
- Less splinters
- Closer year rings
- Higher stability and predominantly enhanced durability.

Felling time

Our larch trees are felled in winter so that the cut wood can dry before fertile fungus spores, which can lead to early decomposition, appear.

Corning

During the natural ageing process of the tree, core materials are deposited in the wood. This corning is responsible for the rot-resistance of the mountain larch. Good corning and therefore suitability for ground insertion is recognisable to our colleagues by the red colour of the wood.

Sapwood

According to our wood quality criteria, timbers of mountain larch are delivered almost sapwood free.

Year rings

Wood with close year rings is more resistant to rot. Wood intended for ground insertion and for horizontal beams has particularly close rings. Our poles have at least 8 year rings in the outer 2 centimetres.

Evenness

We ensure that poles inserted into the ground and horizontal beams have centred rings so that close ring wood lies near the outer edge. We do not permit an eccentricity of the piths of greater than 3 cm.

Fungal attack

Occasionally even a standing tree is attacked by fungus. Such wood only gives limited durability, which is why we carefully sort it out.

Wood moisture

Wood-destroying fungi require high levels of moisture in the wood. We increase the lifespan of our wood through natural open-air drying. Advanced drying in the poles is demonstrated by the appearance of splits. Our sawn timber is already dried to around 15 - 20% of original wood moisture before it is used for construction.

Since 1989 we have manufactured much of our wooden play equipment of unimpregnated mountain larch. Our play equipment made of unimpregnated poles of mountain larch stands as a rule on steel feet. For short vertical pole length we do without steel feet construction more and more. For square timbers inserted into the ground we use oak core timber. The end-grained timber surfaces are cut on the cross and covered with paraffin wax.



Photo © Valentin Luthiger

Experience of time

living with time

playing with time

experiencing time

Frage
nach dem Durch-
gang ;

Experience of time

Alongside the rational interaction with time, the time of day, there is another more primal form of time pulsating through life. This appears when people become totally immersed in an activity, completely lose themselves in the moment and the passage, rhythm and intervals of time simply flow by.

Time, like other phenomena, appears as a polar experience in people's lives. Both modern quantum mechanics and the fairy tale of the hare and the tortoise show that time is not a line between now and later, but spaces of time. These can be inflated like a balloon to extend relaxation or even boredom or shrunk to create chaos, rush and stress.

We don't know very much about the origin of time as the foundation of our existence. Like all perception, time can only be experienced by being seen as a whole. You need to take time out to be able to hear a melody out of the sum of the individual notes or a rhythm from the sum of individual beats.

Fascinating experiences of time are created by the infinite variety of rhythms in the Impulse Spheres.

A quick spin of the Turning Circle transforms an arrangement of symmetrical layers into chaos that reorders itself in pulsating movements as it slows down.

At the Three-Frequency Pendulum, harmonic vibrations can be experienced.

Es ist der Organismus als
Ganzes der die Organe zu-
sammenhält. Solange ich den
"roten faden" statt in mir selbst
woanders suche leblich nur brüch-
stückhaft mit mir selbst

Play value

Nine freely suspended spheres are hung in a row, touching each other. If the first one is pulled back and released to collide with the others, something truly amazing can be experienced. The impact force of the sphere travels unseen through the whole row of spheres until it finds its opposite number, the last sphere, which is forced outwards and with almost equal energy, returns to collide with the row of spheres. The procedure is repeated until the force is dissipated. One or more spheres can be used to create endless variations and number games in a variety of rhythms. The laws of elasticity and energy can be experienced.

Fundamental characteristics

- Unique and original
- Attractiv design
- Incentive for playing: Curiosity

Recommended for

- Kindergarten children
- School children
- Young people
- Adult
- Senioren



Order No. 10.11010 Impulse Spheres, Frame of stainless steel



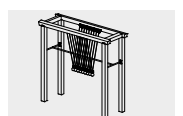
Order No. 10.11010 Impulse Spheres with Frame made of stainless steel



Order No. 10.11000 Impulse Spheres

Impulse Spheres

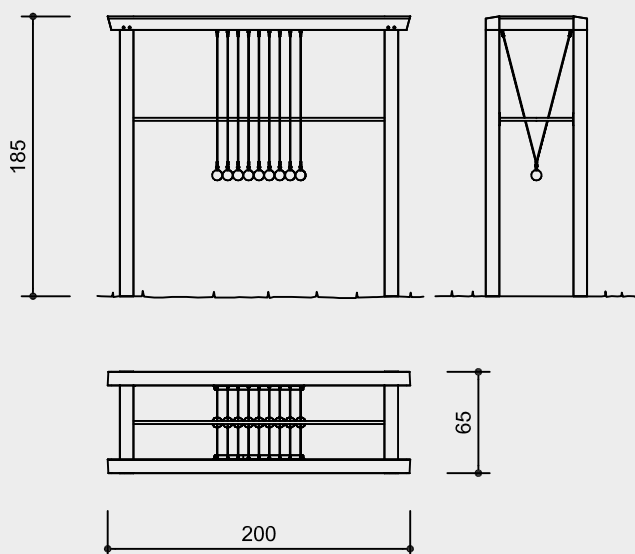
Acoustic effect	medium
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (EN 1176)	has been completed
Installation in concrete	possible



10.11000

Order No. 10.11000
Impulse Spheres

Safety distance →
 Device dimensions ●
 Functional distance —



Scale 1:50

Safety check according to DIN EN 1176

Components

- 1 Complete piece of equipment with steel feet and 9 stainless steel spheres

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 4.05 x 3.00 m

Foundations
 2 items 40 x 100 x 40 cm
 Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.

Frame also available made of stainless steel (Order No. 10.11010).

Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Only wood joints in accordance with traditional carpentry

Suspended on stainless steel cable

Fastening of suspension frame using adjustable attachments

High-quality, specially hardened stainless spheres (Ø 70 mm), for optimum impulse

Angle and limiting bar made of stainless steel

Dimensions

(small deviations possible)

Height	1.85 m
Length	2.00 m
Width	0.65 m
Weight	110 kg



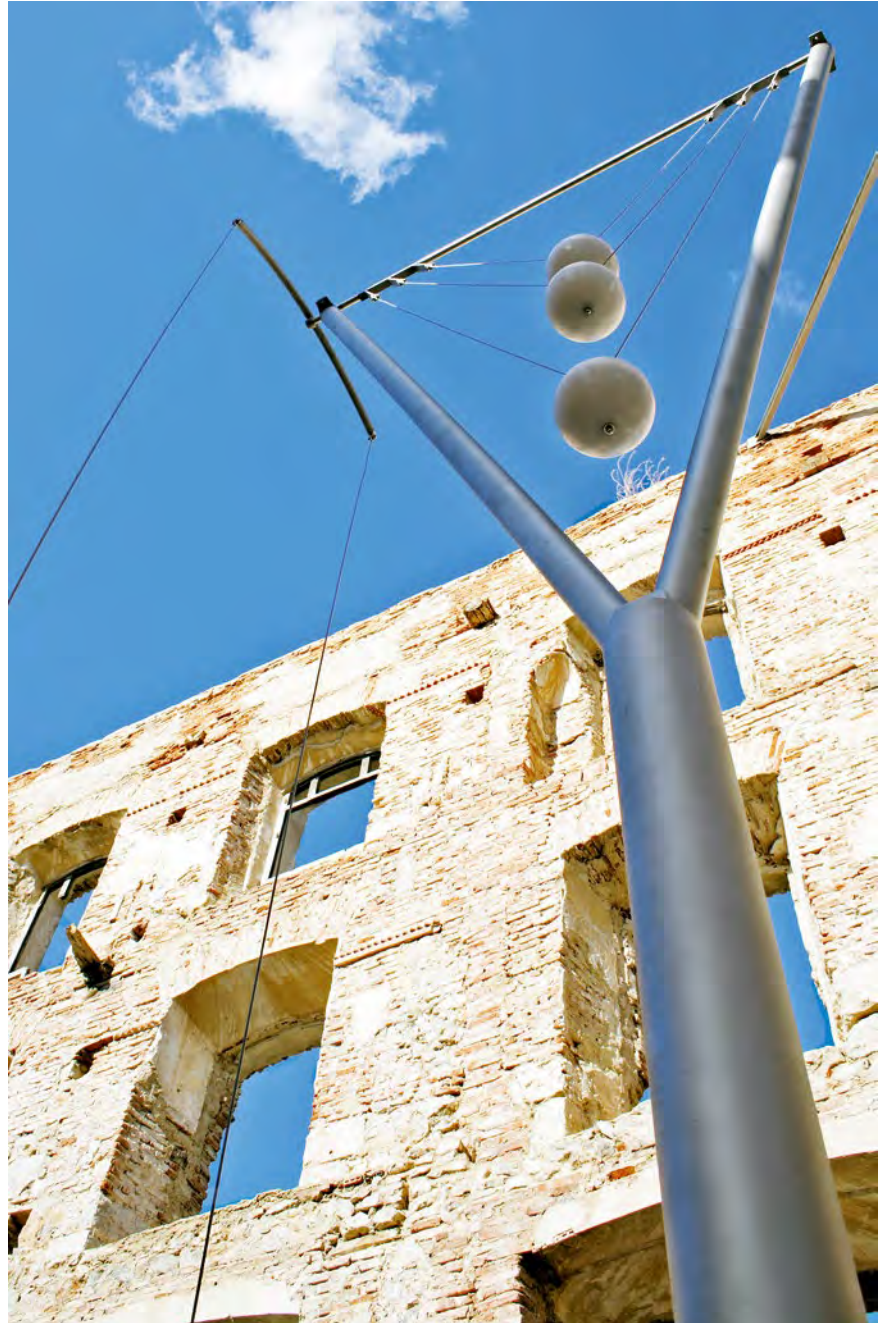
10.11000

Play value

Three pendulums with spherical weights are suspended from a common axis high above the heads of the observers. The axis can be set in motion at any velocity by a rope according to the belfry principle. The correct rhythm for pulling the string and controlling the turning velocity of the axis making the spheres swing one after the other, can be found by careful trial and error. The length of the pendulum arms determines the amount of vibration and has been designed in a way that the result is a harmonic, integral relationship between the vibrations. In the same way that the tones of 3 different bells ringing together results in an accord the spheres also meet repeatedly for a short moment in a vibrational pattern. This moment is especially fascinating for the observer.

Recommended for

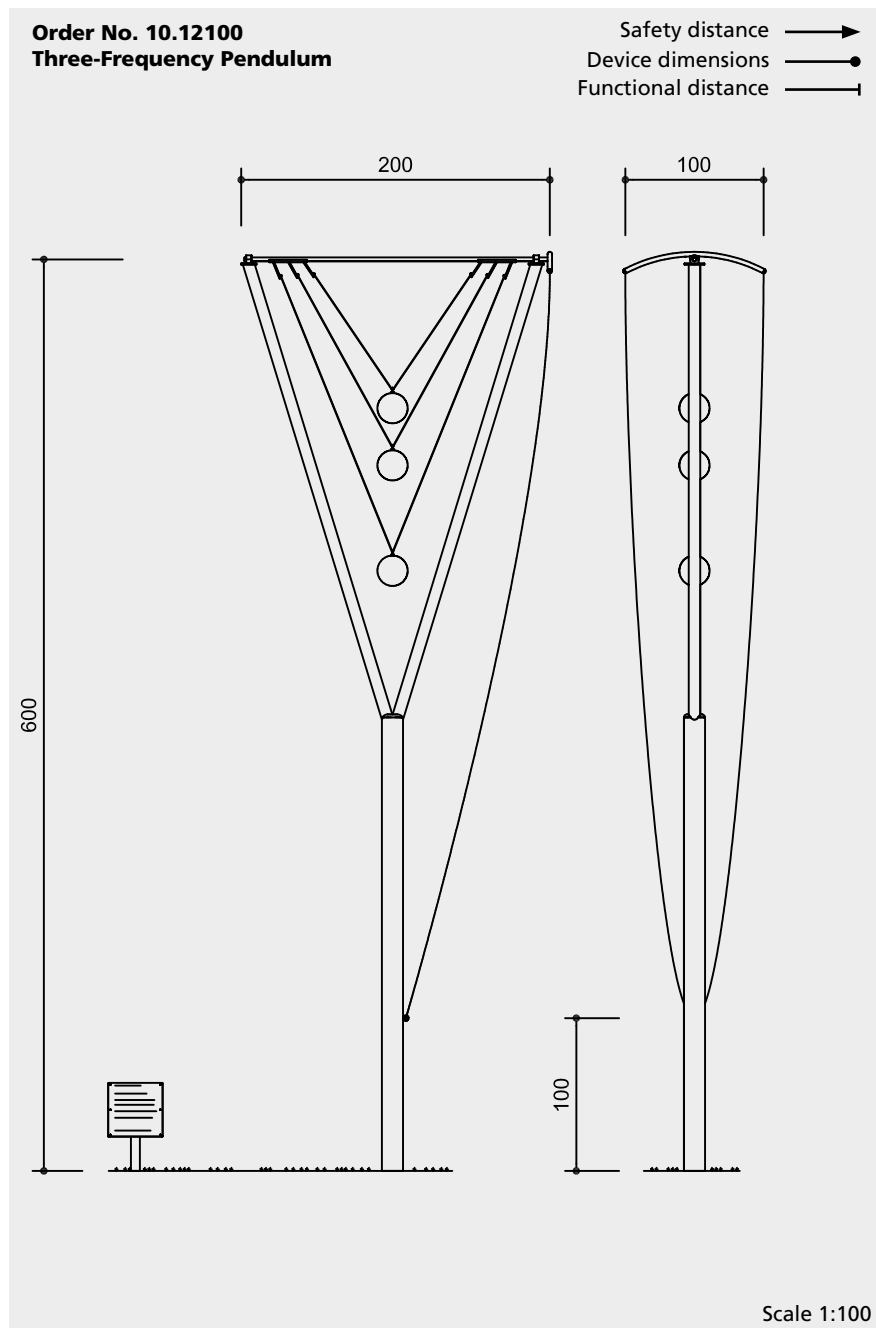
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



Three-Frequency Pendulum

Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible





Safety check according to DIN EN 1176

Components

- 1 Complete piece of equipment with foundation anchor
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Recommended space with functional distance
5.00 x 3.00 m

Foundations
1 item 130 x 130 x 70 cm reinforced
Blinding layer
1 item 130 x 130 x 5 cm
Total excavation depth 115 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.



10.12100

Technical information

Frame made of stainless steel

Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Surface blasted with glass beads

Three heavy plastic spheres, suspended separately on stainless steel cable, to be set in motion by a bow with rope

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	6.00 m
Width	2.00 m
Depth including bow with rope	1.00 m
Weight	200 kg

© Richter Spielgeräte GmbH 11/22

Play value

Turning the disc sets two differently coloured sands in motion and these then trickle through fine funnel openings. As a rule, like goes to like, like things join together: large to large, heavy to heavy. Mountains and valleys, shot through by regular two-coloured layers form on one side, while the other side shows increasing waves of erosion. A stimulating experience as a result of the formation of continually new patterns. Just a gentle turn of the disc is enough to change the picture into ever new and flowing forms, each unique and fleeting. Whole landscapes and aesthetic patterns appear in the sand. Turning the disc too fast results in chaos. However, if the disc is left to trickle while stationary, new structures form.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



Order No. 10.13500 for wall attachment

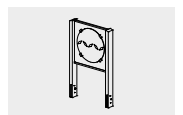


Turning Circle special Version

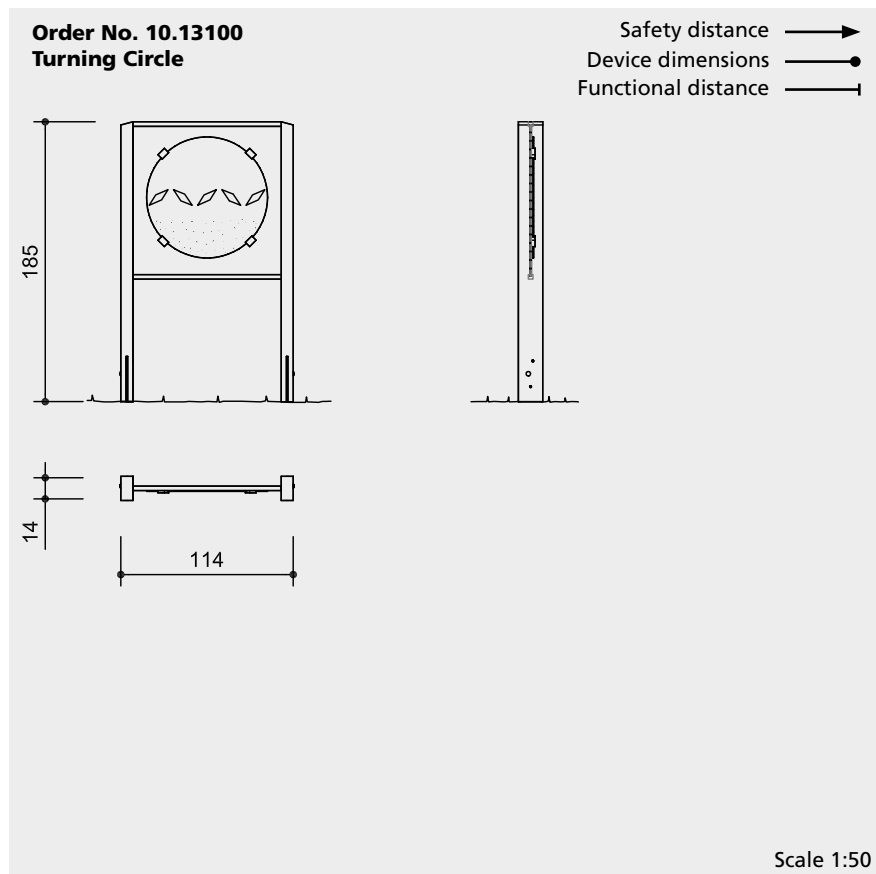
Design W. Graubner based on H. Kükelhaus

Turning Circle

Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.13100



Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Impact- and weather-resistant acrylic glass held in four corrosion-proof bearings

Large-diameter board with thick, transparent and completely non-smear UV-proof outer disc

Condensation in disc interior precluded

Dimensions

(small deviations possible)

Height	1.85 m
Width	1.14 m
Depth	0.14 m
Board	1.00 x 1.00 m
Turning disc diameter	0.86 m
Weight	90 kg

Components

- 1 Turning circle
- 1 Support frame with steel feet and installation plate

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
3.00 x 2.00 m

Foundations
2 items 40 x 40 x 50 cm
Excavation depth 70 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Turning Circle also available for wall attachment (Order No. 10.13500) or with frame made of stainless steel (Order No. 10.13105).



10.13100



Photo © Paul Upward

Experience of patterns

living with patterns

playing with patterns

experiencing patterns

Experience of patterns

The primordial motion of living things is best illustrated in water. The motion of waves, meanders and spiralling whirlpools are formed out of the interaction and rhythms of currents. The pattern of time causes the spatial arrangement of water movements to change.

This motion appears to be inscribed in the shape of shells, in bones, ears, the larynx, noses and in the interior of heart and brain. They are also inscribed as a part of our primeval memory of our creation of embryonic gesticulation in the form of unconscious patterns of perception. Observing inward and outward rolls, spirals of double spirals is a moving experience. In the Whirlpool Column, primal motion can be simulated with childlike simplicity.

The currents which are formed in flowing water by the obstacles of the pattern board and disc are diverse and beautiful to watch.

The large Double Helix offers a basic visual game. The eye produces involuntarily "memory pictures" and the observer believes he perceives a motion that actually is not there.

Frage
nach dem Durchgang ;

Wo ist der rote Faden,
der alles zusammenhält?
Schwimmen hält?

Antwort :

Der rote Faden
ist man selbst.

Es ist der Organismus als
Ganzes der die Organe zusammenhält.
Solange ich den "roten Faden" statt in mir selbst,
woanders suche leblich nur brüch.
stückhaft mit mir selbst



Play value

Our finger labyrinth is a particularly stimulating game for the senses and a nice way to find a little breathing space in the often hectic everyday life. By moving with the hand and with the eyes, the Finger Labyrinth has a similar effect as the infinity symbol when the finger slides along the depressions, which has been proven to help activate the two halves of the brain and connect them better. Children in particular love to concentrate on the path of their finger in the groove and come to rest.

Fundamental characteristics

- Unique position
- Stable construction made of high quality materials
- Special appeal to the senses through attractive design
- Game impulse: Curiosity

Recommended for

- School children
- Young people
- Adults
- Older people
- Supervised play areas, such as schools, after-school programmes or similar
- Public indoor play areas without supervision

Barrier-free

- Independent play



Order No. 10.14500 Fingerlabyrinth for wall attachment

**Fingerlabyrinth for wall attachment
Fingerlabyrinth with stand frame
made of stainless steel**

Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



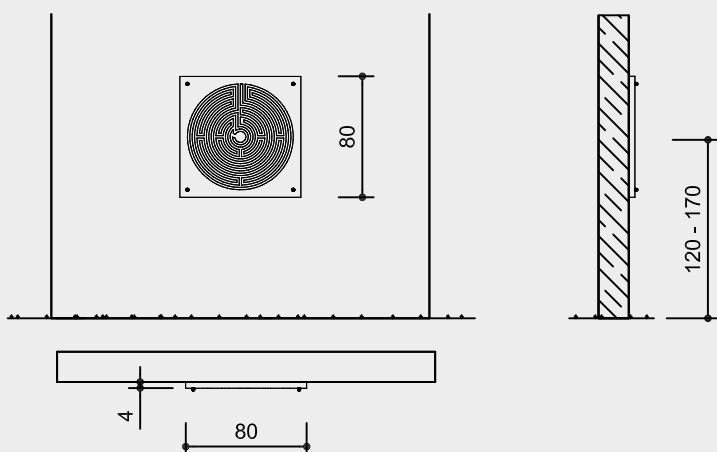
10.14500



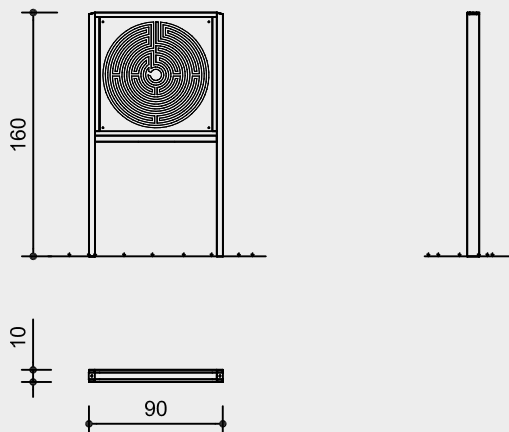
10.14505

Order No. 10.14500
Fingerlabyrinth for wall attachment

Safety distance →
 Device dimensions —●—
 Functional distance —|—



Order No. 10.14505
Fingerlabyrinth with stand frame made of stainless steel



Scale 1:50

Technical information

Tablet of stone, Nero Impala

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Surface flamed and brushed
 Chamfered edges and corners
 sides sanded

Dimensions

(small deviations possible)

Order No. 10.14500
Fingerlabyrinth for wall attachment

Board 0.80 x 0.80 m
 Weight: 60 kg

Order No. 10.14505
Fingerlabyrinth with stand frame made of stainless steel

Height 1.60 m
 Width 0.90 m
 Depth 0.10 m
 Board 0.80 x 0.80 m
 Weight: 100 kg

Components

Order No. 10.14500

1 Complete piece of equipment to screwing on with fixing material

Order No. 10.14505

1 Complete piece of equipment to plug on with fixing material

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 3.00 x 2.00 m

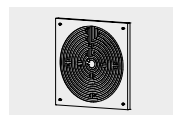
Foundations

Order No. 10.14505
 2 items 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.14500



10.14505

Play value

Water can be found in the space within a transparent board where small particles create clear patterns. The board can be very easily set into a gentle pendulum motion due to the large, heavy counterweights. This rhythm effect causes designs to form. Water currents which collide into a wall create waves whose structure resembles sand on the bottom of the ocean. It can be clearly seen how the water flows around the obstacles and flows more quickly through the narrow canals. Typical flowing patterns build up in front of obstacles and in the water eddy behind them.

The slow progress of this activity requires patience and encourages the observer to watch attentively. We experience time through daily rhythm, e.g. the rhythm of day and night. The rhythm of the currents is an expression of time which can be directly experienced. And it is in this way that the game taps into people's natural rhythm and moods.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

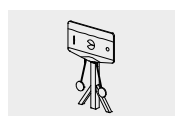
- Independent play



Order No. 10.15005 with support post made of stainless steel




Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible

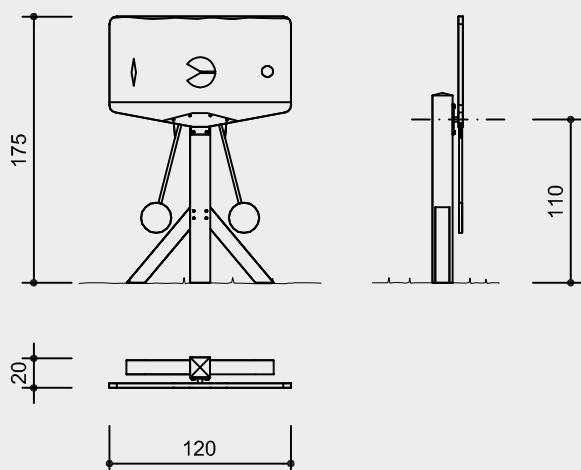
Pattern Board



10.15000

Order No. 10.15000
Pattern Board

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Safety check according to DIN EN 1176

Components

- 1 Pattern board
- 1 Rack

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 3.00 x 3.00 m

Foundations
 2 items 50 x 30 x 30 cm
 Excavation depth 50 cm
 1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.
Equipment also available with stand
posts made of stainless steel
(Order No. 10.15005) or for wall
attachment (Order No. 10.15500).

Technical information

Equipment made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

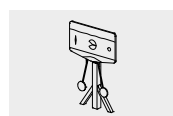
Extremely impact-resistant acrylic double screen

Special algae-free glycol mixture as high-contrast flow liquid, frostproof to approx. - 20° C

Dimensions

(small deviations possible)

Height	1.75 m
Width	1.20 m
Depth	0.20 m
Weight	60 kg
with packing material	100 kg



10.15000

Play value

By turning this water-filled body around in various directions the flow creates fast or slow moving patterns. The gap between two boards is filled with water containing tiny particles which clearly highlight the patterns. The disc can be moved and turned in all three dimensions. The effect of the universal joint mounting is an experience in itself for many. There are four obstacles inside the disc; the liquid flows over or through them. Typical flowing patterns build up in front of obstacles and in the eddy behind them with shapes forming in a symmetrical inward and outward spiral movement. The trapped air bubbles are a further element which demonstrates the effect of opposing forces on a shapeable body.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

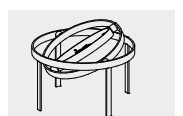
Barrier-free

- Independent play



Pattern Disc

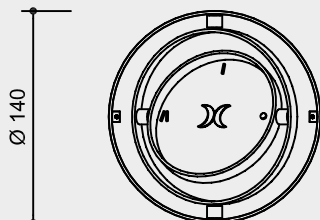
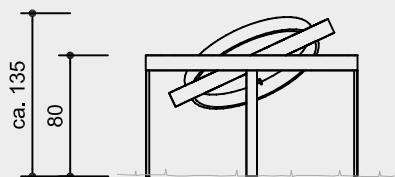
Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	is standard



10.15100

Order No. 10.15100
Pattern Disc

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Safety check according to DIN EN 1176

Components

1 Complete piece of equipment

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 circle diameter 4.00 m

Foundations
 4 items 30 x 30 x 40 cm
 Excavation depth 60 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Technical information

Frame made of aluminium / stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Extremely impact-resistant acrylic double screen

Special algae-free glycol mixture as high-contrast flow liquid, frostproof to approx. - 20° C

Maintenance-free stainless steel bearing

Bearing of the screen decelerated to avoid the turning movement being started too fast

Dimensions

(small deviations possible)

Frame diameter	1.40 m
Total height approx.	1.35 m
Frame height	0.80 m
Disc diameter	0.90 m
Weight	60 kg



10.15100

Play value

In every watercourse the observer is confronted with a great variety of wave shapes, flow patterns and eddies which are often accompanied by typical water sounds. When the basic shapes meet they form a variety of wave patterns. The Leonardo Table is a polished, slightly inclined stone platter which has a thin film of water flowing over it. A number of variously shaped obstacles can be placed in this flow. In the wake of the obstacles turbulent, swirling currents appear. It is possible to observe the eddies; the fine structures can be made visible if a little dust is thrown on the water. The obstacles on the Leonardo Table can be pushed against the flow. By changing the flow rate also the frequency with which the eddy loosens itself from the obstacles changes. The eddies caused by the turbulence then become even smaller.

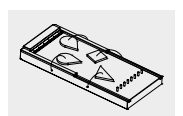
Recommended for

- Kindergarten children
- School children
- Water play areas without supervision






Leonardo Table

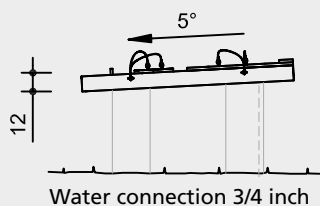
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



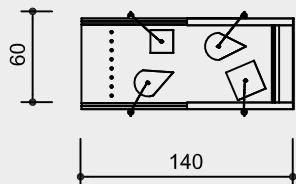
10.16100

Order No. 10.16100
Leonardo Table

Safety distance 
 Device dimensions 
 Functional distance 



Stand supports to be constructed on site.



Scale 1:50

Technical information

Polished and weather-resistant granite platter

Four differently formed flow obstacles for creating flow patterns, fixed with stainless steel cables

Other metal parts and water distribution made of stainless steel

Dimensions

(small deviations possible)

Height	0.12 m
Length	1.40 m
Width	0.60 m
Weight	350 kg

Components

- 1 Granite platter
- 4 Flow obstacles including fastening material

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

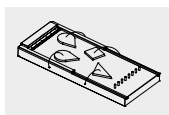
Recommended space
 3.00 x 2.00 m

Stand supports and water connections to be constructed on site according to manufacturer's specifications.

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.16100

© Richter Spielgeräte GmbH 11/22

Play value

Screw-like and spiralling movements naturally occur in nature. It takes practice to recognize these complex current forms, for example in a whirlpool. Those who turn the hand-crank at this play station experience two interrelated forces and can experience the principle behind a vortex. With increasing acceleration the impeller creates a whirlpool which can be very clearly seen in the water filled cylinder. While a vortex funnel forms downwards, the water flowing in the opposite direction creates a counter vortex in the cylinder. The turning motion from top to bottom causes a sucking effect which draws the water upwards. The water mass which forms a vortex funnel rotates in a spiralling shape in two directions creating its own counter movement.

Recommended for

- School children
- Young people
- Adults
- Waterplay areas without supervision
- Swimming pools without supervision, such as outdoor pools, adventure pools or similar

Barrier-free

- Independent play



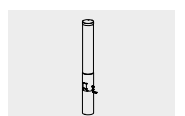
Photo © Daniel Perales



Photo © Ayumi Nakanishi

**Whirlpool Column
Whirlpool Column with Lighting**

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible

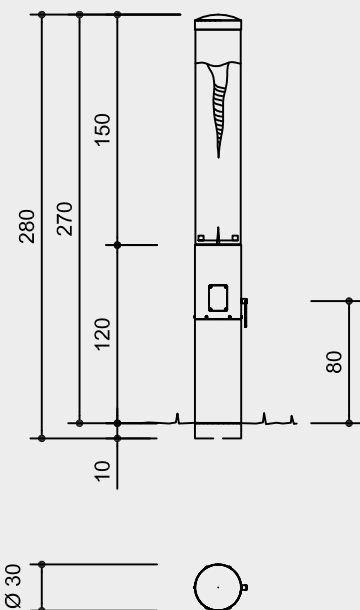


10.17000 / 10.17500

Design W. Graubner based on H. Kükelhaus

**Order No. 10.17000
Whirlpool Column**

Safety distance →
Device dimensions ●
Functional distance —



Scale 1:50

Technical information

Large thick-walled whirlpool cylinder made of extremely impact-resistant acrylic glass

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Special algae-free glycol mixture, frostproof to approx. - 25° C

Support column made of stainless steel

Low-maintenance gear with freewheel turning handle against anti-kickback device

Order No. 10.17500

Whirlpool Column with Lighting

Technical details as described before, but in addition with internal LED lighting at the base of the whirlpool cylinder, power generation by dynamo, illumination only during rotational movement

Components

- 1 Whirlpool column
- 3 Canisters with 20 litres glycol mixture each

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
circle diameter 3.00 m

Foundations
1 item 50 x 50 x 60 cm
Excavation depth 70 cm

Attention:

**Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.**

Technical changes reserved.

Dimensions

(small deviations possible)

Height	2.70 m
Diameter	0.30 m
Weight	75 kg
incl. water and packaging material	210 kg



10.17000 / 10.17500

Play value

By turning the Double Helix, the outer and the inner spiral, which are connected to each other, move in a way that we perceive it as an upward and downward movement. Furthermore, the shadow of the double screw is seen as contra-rotating. In fact however, the turning movement takes place at the same level, i.e. every point on the double spiral remains at the same height. As with the pendulum, but here in a circulating movement, we experience the universal principle that in every rise a fall is inherent and vice versa.

Recommended for

- School children
- Young people
- Adults
- Older people
- Water play areas without supervision
- Public play areas without supervision, such as playgrounds, parks or similar



Special version



Special version

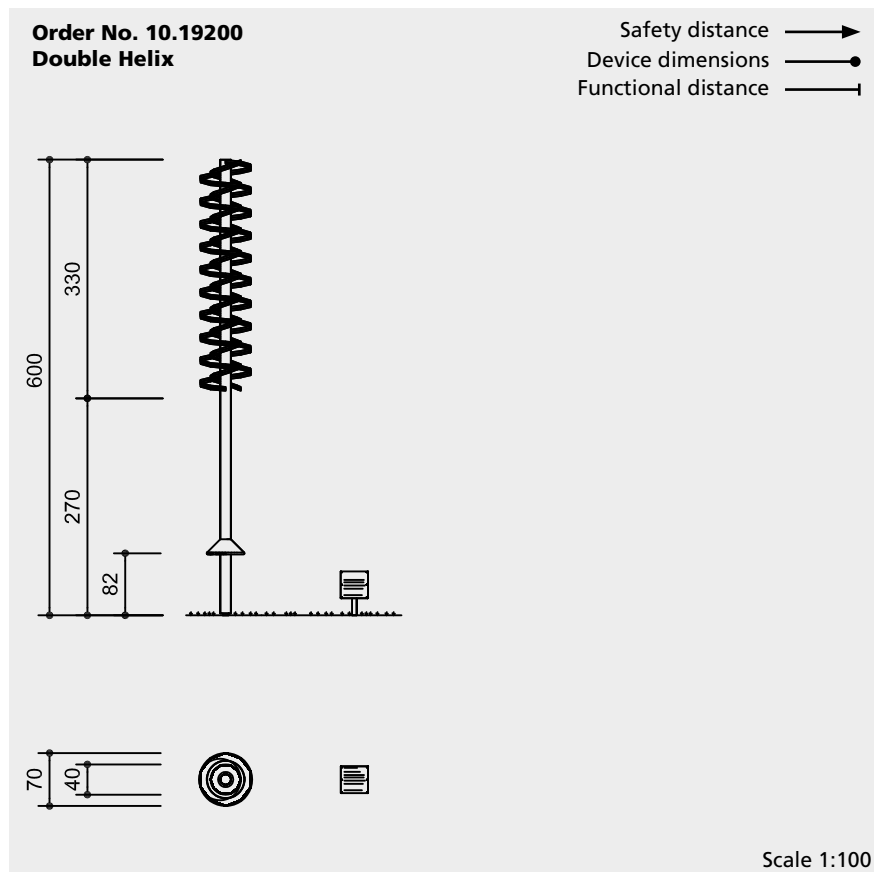


Double Helix

Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible



10.19200



Safety check according to DIN EN 1176

Components

- 1 Complete piece of equipment with foundation anchor
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Recommended space
circle diameter 3.00 m

Foundations
1 item 130 x 130 x 70 cm reinforced
Blinding layer
1 item 130 x 130 x 5 cm
Total excavation depth 115 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
Technical changes reserved.

Double Helix also available in smaller version (Order No. 10.19300) for suspension.

Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Sturdy pivot bearing

Handwheel for starting circular motion

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	6.00 m
Diameter	0.70 m
Weight	270 kg



10.19200



Photo © Paul Upward

Experience of light

living with light

playing with light

experiencing light

Experience of light

Light is a primordial element of life. We perceive it as the spatial relationship between the illuminating and the illuminated objects. In addition to the spatial experience of objects, periods like days and years are characterised by light and colour images.

The substantive connection between people, the eye and the sun, is expressed in moods and physical reactions which are affected by light and shade as well as colours.

The activating energy of light becomes clear in experiments with the big magnifying lens.

The most beautiful colours can be produced with the prisms at the point where light and dark meet.

The spectrum of colours at the edges of a translucent stone is amazing.

The three-dimensional, spatial sight and complementary colours which the eye forms for itself when observing different patterns on the Rotating Discs are sign posts to the basic principles of creation.

The mysteries of the whole, created through symmetry of the individual parts in the Kaleidoscope and Octascope, are beautiful and pleasurable.

In the Walk-in Kaleidoscope people are faced with an unusual perspective of themselves.

Frage
nach dem Durchgang;
Wo ist der rote Faden,
der alles zusammenhält?
Antwort:
Der rote Faden ist man selbst.
Es ist der Organismus als Ganzes der die Organe zusammenhält. Solange ich den "roten Faden" statt in mir selbst, woanders suche, lebe ich nur Bruchstücke mit mir selbst....



Order No. 10.22505 Spiral 2 with post made of stainless steel, Photo © Liz Ligon

Play value

The observer gently spins the disc and then takes a step back. Looking at the disc the eye actively and automatically creates complementary and polar counter images. The sense of sight thus fulfils a basic principle of nature: maintaining the unity in a variety of perceptions, and thus through this unity maintaining the diversity. As a result of the turning motion of the Rotating Discs, observers see a dynamic penetration of the light and dark rotating parts. This creates surprising, colourful light phenomena.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



Photo © Daniel Perales

Rotating Discs

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.22100 - 10.22850



Order No. 10.22450 Rotating Coloured Disc for wall attachment

Colour Disc

The disc is divided into blue and yellow sectors. Turning creates not only a mixture of colours, but also the colour green and after that the complementary colour red. The observer experiences the effect of colour as a physical, non-material appearance.



Order No. 10.22850 Spiral 2 for wall attachment



Order No. 10.22550 Funnel 2 for wall attachment



Order No. 10.22350 Pulsation for wall attachment



10.22100 - 10.22850

Spiral

When the observer turns the disc clockwise, the spiral appears to expand further and further. Turning the disc the opposite way forms a continually deepening funnel. The eye attempts to compensate the one-sidedness of the rotation by involuntarily jumping from one spiral line to the next. This counteraction has the effect of appearing to slow down the rotation and make the funnel grow larger. The complementary colours appear on the borders of the black pattern. If the gaze is diverted from the disc then it appears as if the entire surroundings expand or contract in contrast to the image last seen on the disc - as if in slow motion - resulting in great astonishment. The eye „compensates“. By seeing the complementary colours, a fundamental principle of light becomes visible: colour as the dynamic penetration of dark and light in the form of black and white spiral lines.

Funnel

Turning the disc slowly creates the impression of a rotating cone and funnel, around which there are regular black and white stripes. The impression remains unchanged even if the observer looks at it from different angles. The reason is that the eye seeks a virtual centre in the asymmetrical pattern. However, it can only achieve this by creating a third dimension, namely perspective, thus making the cone or funnel appear three-dimensional.

Pulsation

Here the eye perceives a pulsating physical motion similar to breathing in and out. The square and circle play around each other, pulling together and drawing outwards.



Order No. 10.22550 Spiral 2 as wall attachment

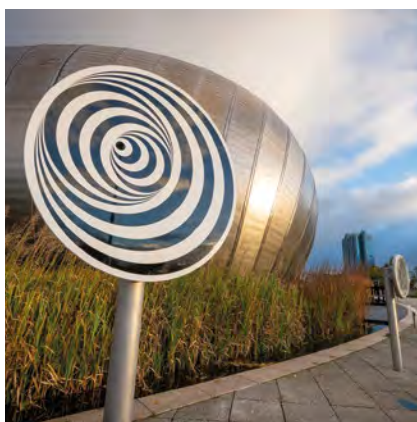


Order No. 10.22450 Colour Disc as wall attachment



Special Versions

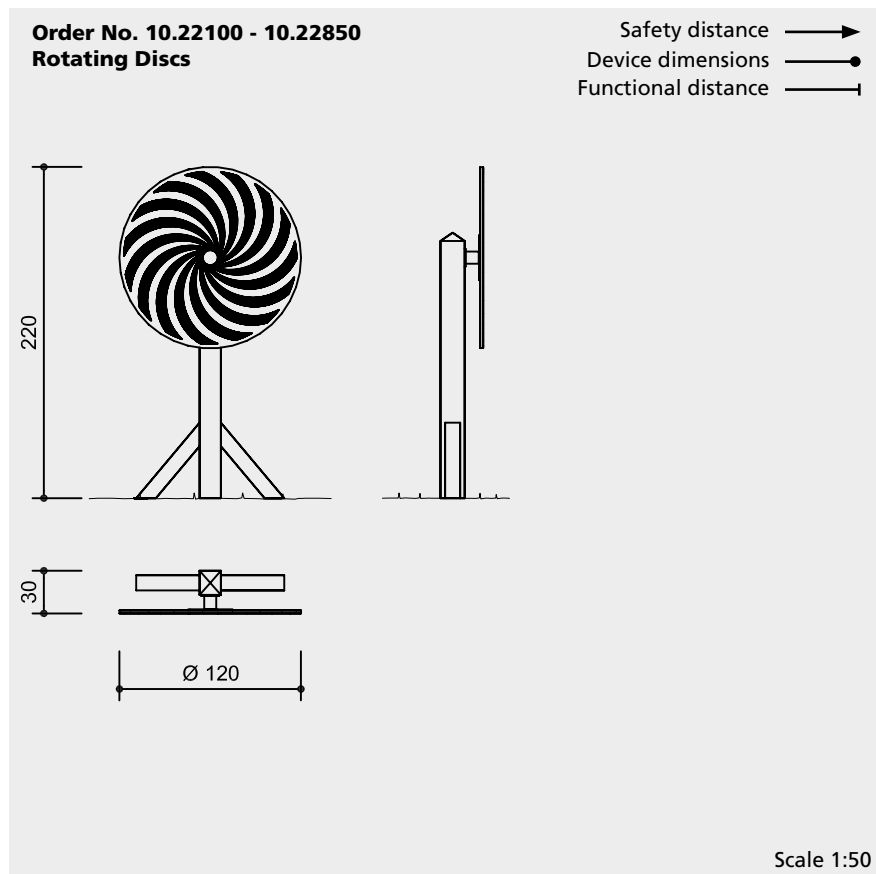
Rotating Discs



Order No. 10.22505 Spiral 2 with post made of stainless steel, Photo © Paul Upward



10.22100 - 10.22850



Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Maintenance-free ball bearing (for enduring motion)

Flange and fastening screws made of stainless steel

Supports made of special plastic

Large-format patterned disc with sufficient motion mass

Precise black and white or coloured print with weather-resistant, special protective paint

Anti-glare surface

Dimensions

(small deviations possible)

Height	2.20 m
Depth	0.30 m
Disc diameter	1.20 m
Weight	80 kg

Components

- 1 Stand Frame with steel foot
- 1 Disc with pattern and bearing, fastening material included

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
6.00 x 2.50 m

Foundations

Stand Frame made of wood

- 1 item 40 x 40 x 40 cm
Excavation depth 60 cm
- 2 items 30 x 50 x 30 cm
Excavation depth 50 cm

Stand post made of stainless steel

- 1 item 60 x 60 x 60 cm
Excavation depth 80 cm

Order No.	Item	Motive
10.22100	Spiral with stand frame made of wood	
10.22105	Spiral with stand post made of stainless steel	
10.22150	Spiral for wall attachment	
10.22200	Funnel with stand frame made of wood	
10.22205	Funnel with stand post made of stainless steel	
10.22250	Funnel for wall attachment	
10.22300	Pulsation with stand frame made of wood	
10.22305	Pulsation with stand post made of stainless steel	
10.22350	Pulsation for wall attachment	
10.22400	Colour disc with stand frame made of wood	
10.22405	Colour disc with stand post made of stainless steel	
10.22450	Colour disc for wall attachment	
10.22500	Funnel 2 with stand frame made of wood	
10.22505	Funnel 2 with stand post made of stainless steel	
10.22550	Funnel 2 for wall attachment	
10.22600	Pulsation 2 with stand frame made of wood	
10.22605	Pulsation 2 with stand post made of stainless steel	
10.22650	Pulsation 2 for wall attachment	
10.22700	Pulsation 3 with stand frame made of wood	
10.22705	Pulsation 3 with stand post made of stainless steel	
10.22750	Pulsation 3 for wall attachment	
10.22800	Spiral 2 with stand frame made of wood	
10.22805	Spiral 2 with stand post made of stainless steel	
10.22850	Spiral 2 for wall attachment	

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.

Technical changes reserved.

**Equipment also available with
stainless steel stand post or for wall
attachment (see table).**



10.22100 - 10.22850

Play value

Originally, in Greek, **kaleidoscope** meant „beautiful picture viewer“. It is fascinating seeing the images created by the Kaleidoscope. Symmetry as a word and a concept - the basic pattern of perception - becomes visible by the images created by the axis of reflection. This reflection causes moving, transparent small coloured parts meet each other from two sides. This symmetry is visually not only simple duplication, but increases the impression of a whole new and complete figure. This wholeness is the open secret. The perception awakens the power of fantasy in both children and adults. A stream of ever-changing and never-repeated constellations is created with a handful of materials - a series of coincidences in the truest sense of the word. The smallest movement, the slightest turn when looking into the Kaleidoscope, and the whole picture changes.

The view through the **Octascope** focuses on the world. As with the Kaleidoscope, the reflection causes a symmetry thus creating new shapes and arrangements by the turning of mirrors when the Octascope is manipulated.

You can adjust the visual acuity by turning the ocular of the **telescope**. The lens is equipped with a fifteenfold magnification.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Public play areas without supervision, such as playgrounds, parks or similar



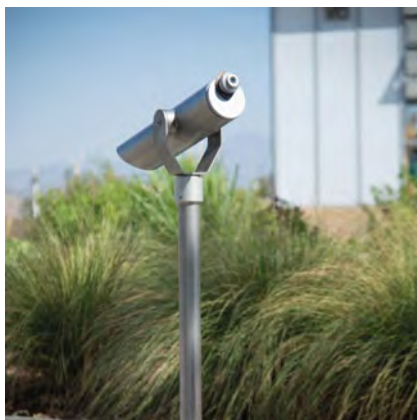
Order No. 10.25000 Telescope, Photo © Daniel Perales



Order No. 10.24100 Octascope, Photo © Daniel Perales



Order No. 10.23100 Kaleidoscope, Photo © Daniel Perales



Order No. 10.25000 Telescope, Photo © Daniel Perales

**Kaleidoscope
Octascope
Telescope**

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	is standard

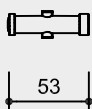
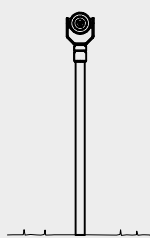
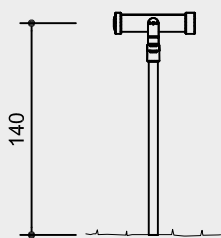


10.23100 / 10.24100

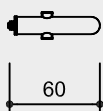
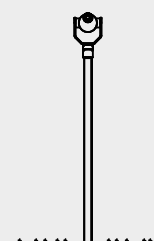
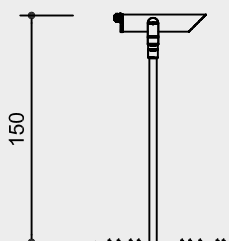





10.25000

Order No. 10.23100
Kaleidoscope
Order No. 10.24100
Octascope



Order No. 10.25000
Telescope



Safety distance 
 Device dimensions 
 Functional distance 

Technical information

Equipment made of stainless steel / Aluminium eloxadized

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Object holder and lens made of glass, permanently elastic and therefore shock-proof mounted, rotatable in all directions with integrated braking

Order No. 10.23100 Kaleidoscope

floating in fluid are carefully chosen glass pieces which are otherwise only used in art glazing and whose light effects are far superior to plastic glazing

Order No. 10.24100 Octascope

with large lens in optical quality, safety glass

Order No. 10.25000 Telescope

magnification 15 times

Dimensions
 (small deviations possible)

Order No. 10.23100 Kaleidoscope
Order No. 10.24100 Octascope

Height	1.40 m
Length	0.53 m
Lens diameter	0.12 m
Weight	30 kg

Order No. 10.25000 Telescope

Height	1.50 m
Length	0.60 m
Lens diameter	0.12 m
Weight	35 kg

Scale 1:50

Safety check according to DIN EN 1176

Components

1 Complete piece of equipment

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 Circle diameter 3.00 m

Foundations
 1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Equipment also available as group equipment with four kaleidoscope heads and illumination for inner area (Order No. 10.23300).



10.23100 / 10.24100



10.25000

Play value

An all-round view of the individual, mirrored multiple times, is an experience that is very well suited for the centre of a labyrinth or the end of an experience path. Initially we produced mirrors exclusively from polished sheets of stainless steel.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Planning information

To prevent the underground parts of the mechanism from being damaged, we strongly advise against installing the equipment in sand.



Photo © Daniel Perales



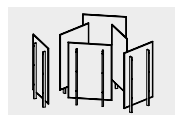
Photo © Daniel Perales

Walk-in Kaleidoscope

Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



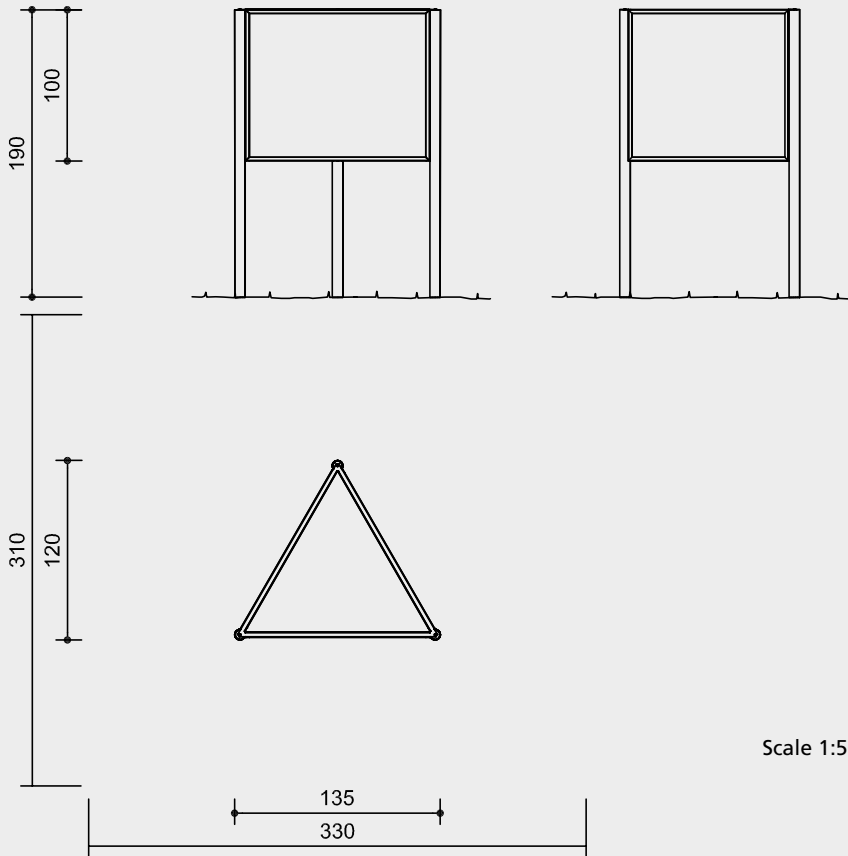
10.23400



10.23410 / 10.23420

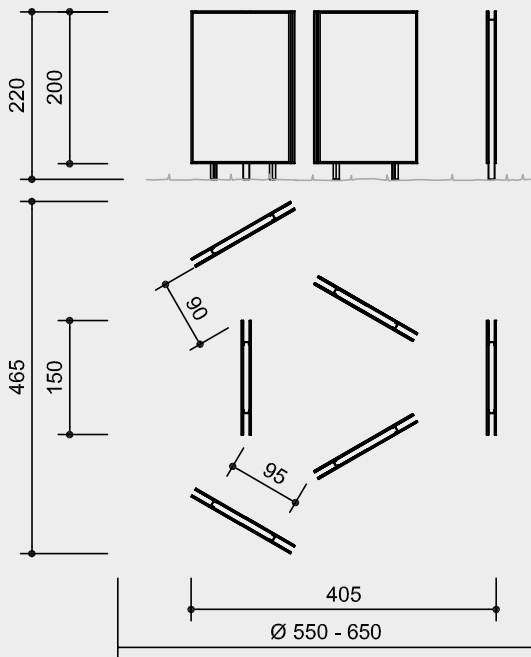
Order No. 10.23400
Small Walk-in Kaleidoscope

Safety distance →
 Device dimensions ●
 Functional distance —|—



Scale 1:50

Order No. 10.23410
Large Walk-in Kaleidoscope mirrors only inside
Order No. 10.23420
Large Walk-in Kaleidoscope mirrors inside and outside

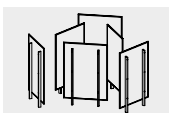


Scale 1:100

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.



10.23400



10.23410 / 10.23420

Technical information

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Order No. 10.23400
Small Walk-in Kaleidoscope

Frame made of stainless steel
 Surface blasted with glass beads
 Panels made of special laminated wood
 Inside high-gloss finished stainless steel mirrors, mounted in stainless steel profiles

Order No. 10.23410 / 10.23420
Large Walk-in Kaleidoscope

Hot-dip galvanised support construction
 High-gloss polished stainless steel mirrors bonded flexibly to water-proof laminated panels, mounted in anodised aluminium profiles
 Mirror thickness 1.5 mm

Dimensions

(small deviations possible)

Order No. 10.23400
Small Walk-in Kaleidoscope

Height	1.90 m
Length	1.35 m
Weight	120 kg

Order No. 10.23410 / 10.23420
Large Walk-in Kaleidoscope

For each wall element	
Height	2.20 m
Width	1.50 m
Width total	4.65 m
Length total	4.05 m
Weight	600 / 800 kg

Components

Order No. 10.23400
 1 Small Walk-in Kaleidoscope mirror-finished on the inside

Order No. 10.23410 / 10.23420
 6 Wall elements mirror-finished on one or both sides

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space

Order No. 10.23400
 3.30 x 3.10 m

Order No. 10.23410 / 10.23420
 circle diameter 5.50 - 6.50 m

Foundations

Order No. 10.23400
 3 items 30 x 30 x 40 cm
 Excavation depth 60 cm

Order No. 10.23410 / 10.23420
 12 items 60 x 40 x 40 cm
 Excavation depth 60 cm

Play value

Your own reflection is interrupted by the gaps between the strips of mirror in such a way that you can look at yourself with the eyes of the person opposite you. You and a second person stand at arm's length on either side of the equipment. You now sink your head or stretch up a little until the two faces in the mirror fit together. You can now see, e.g. the other person's hair, your own forehead, the other person's eyes, and your own nose, and so on. The mirror mixes up the faces in such a way that you can see with the other person's eyes.



Photo © Ayumi Nakanishi

This is a self-explanatory game for young and old and one which promotes integration and cooperation.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Public play areas such as kindergartens, schools, after- school programmes or similar

Barrier-free

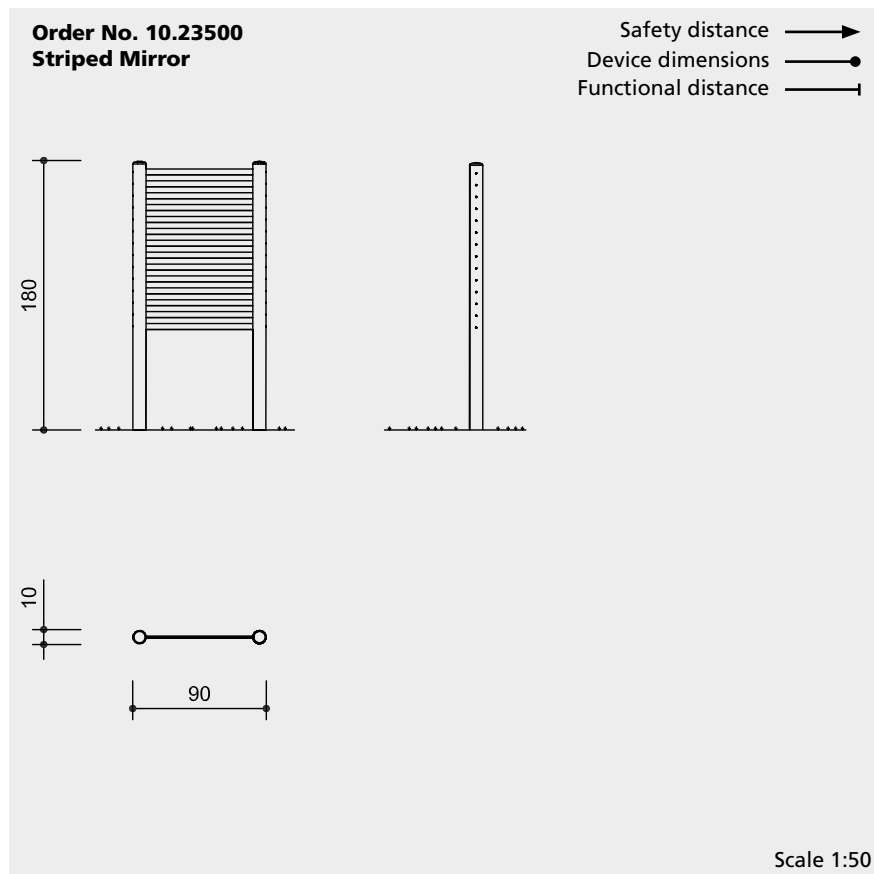
- Independent play

Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible

Striped Mirror



10.23500



Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Mirror made of double-sided high gloss polished stainless steel

Individual strips can be replaced

Dimensions

(small deviations possible)

Height	1.80 m
Width	0.90 m
Depth	0.10 m
Weight	64 kg

Components

- 1 Striped Mirror for dowelling, with 8 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Explanation board on request

Installation information

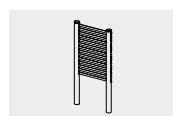
Recommended space
3.00 x 2.00 m

Foundations
2 items 50 x 50 x 40 cm
Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.23500



Play value

In its simplest form, a periscope consists of a tube with mirrors at each end. Light beams running at right angles to the tube are deflected into the tube by the mirror at one end. At the other end the light beams leave the tube offset parallel to the original direction of entry. A user looking into the lower opening of a periscope will have the feeling they are viewing the surroundings from a higher position. The mirrors are positioned at a 45° angle to the entering and exiting light beam, resulting in a rectangular deflection. The upper part is pivoted and can be rotated by 360°.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

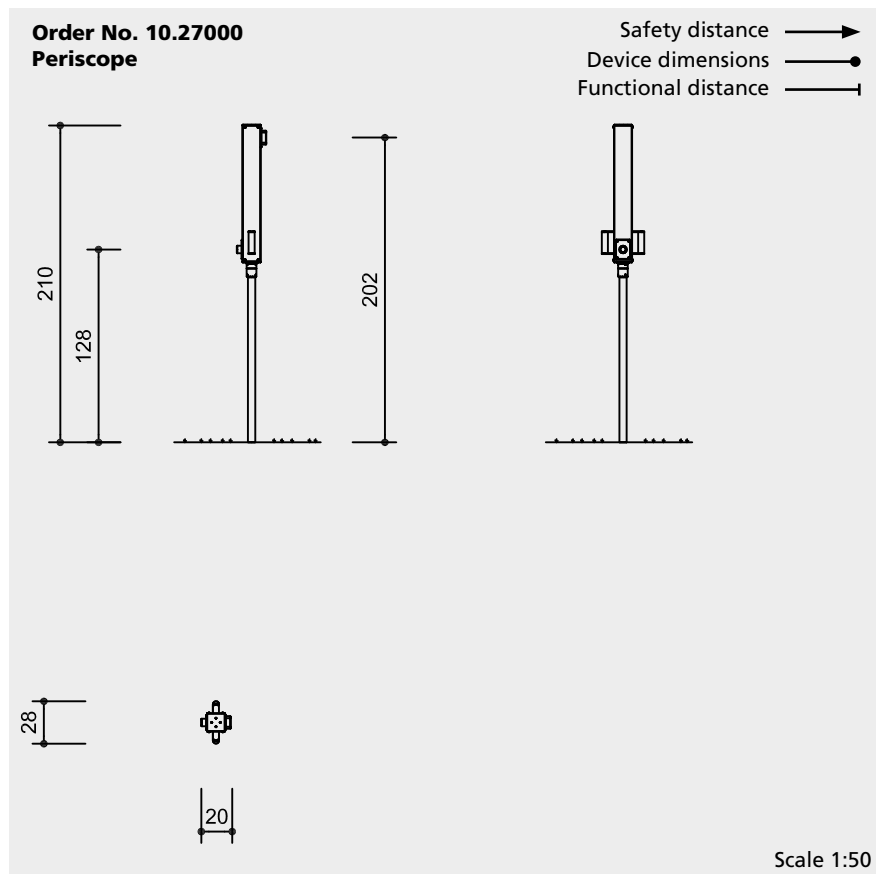


Periscope

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors & outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.27000



Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Handles made of black plastic

Upper part pivoted, rotatable by 360 °, deflection of entering light through integrated mirror sheets

Openings for entering and exiting light beams made of aluminium

Dimensions

(small deviations possible)

Total height	2.10 m
Height of ocular	1.28 m
Top opening	2.02 m
Length	0.20 m
Width	0.28 m
Weight	40 kg

Safety

This equipment is not playground equipment within the scope of DIN EN 1176 and therefore is also not subject to the requirements of this standard. However, it is complied with where appropriate.

Components

1 Periscope

Trademark

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40-0682207 South Korea

Explanation board on request

Installation information

Surfacing requirements
no requirements

Recommended space
Including safety distances
Circle diameter 300 cm

We recommend installing the periscope in front of an elevated object (mound, wooden fence, boulder or the like) with a height of approx. 1.50 m to 1.80 m in order to increase the play value.

Foundations
1 item 40 x 40 x 40 cm
Excavation 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
Technical changes reserved.



10.27000



Play value

If you look through the prism in daylight the most wonderful colours can be seen: red, orange, yellow, green, blue, indigo, violet. Smaller dark objects in the surrounding area appear to be totally colourful, lines look as if they are curved, and, in the boundary between sunlit and shadowed areas, coloured fringes appear. Because the light does not pass through the prism in a straight line it is possible to transpose the image of the dark surface over that of the light surface by turning the prism. The brightness of light and the shadows of dark are seen as the source of all colour appearances. The figure on the explanation board includes in delivery makes it easier to find the optimal spot.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play

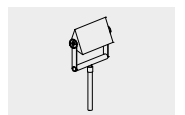


Photo © Valentin Luthiger

Water Prism






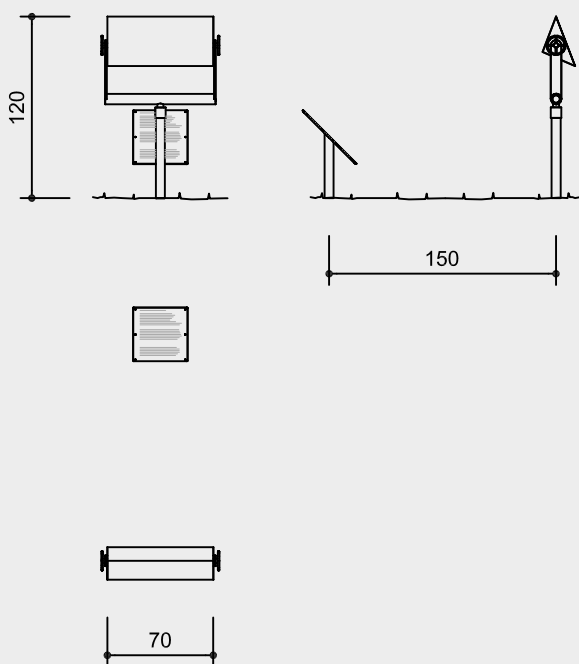
Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.31000

Order No. 10.31000
Water Prism

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Large-format acrylic glass prism on vertically and horizontally rotatable stainless steel support

Special algae-free glycol mixture, frostproof to approx. - 20° C

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.20 m
Prism	0.70 x 0.35 x 0.25 m
Weight	80 kg

Components

- 1 Complete piece of equipment
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Installation information

Recommended space circle diameter 3.00 m

Foundations
 2 items 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.



10.31000

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Design W. Graubner

Play value

If you look through the prism in daylight the most wonderful colours can be seen: red, orange, yellow, green, blue, indigo, violet. Smaller dark objects in the surrounding area appear to be totally colourful, lines look as if they are curved and, in the boundary between sunlit and shadowed areas, coloured fringes appear. Because the light does not pass through the prism in a straight line it is possible to transpose the image of the dark surface over that of the light surface by turning the prism. The brightness of light and the shadows of dark are seen as the source of all colour appearances.

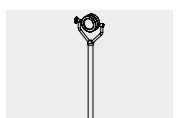
Recommended for

- School children
- Young people
- Supervised play areas such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar

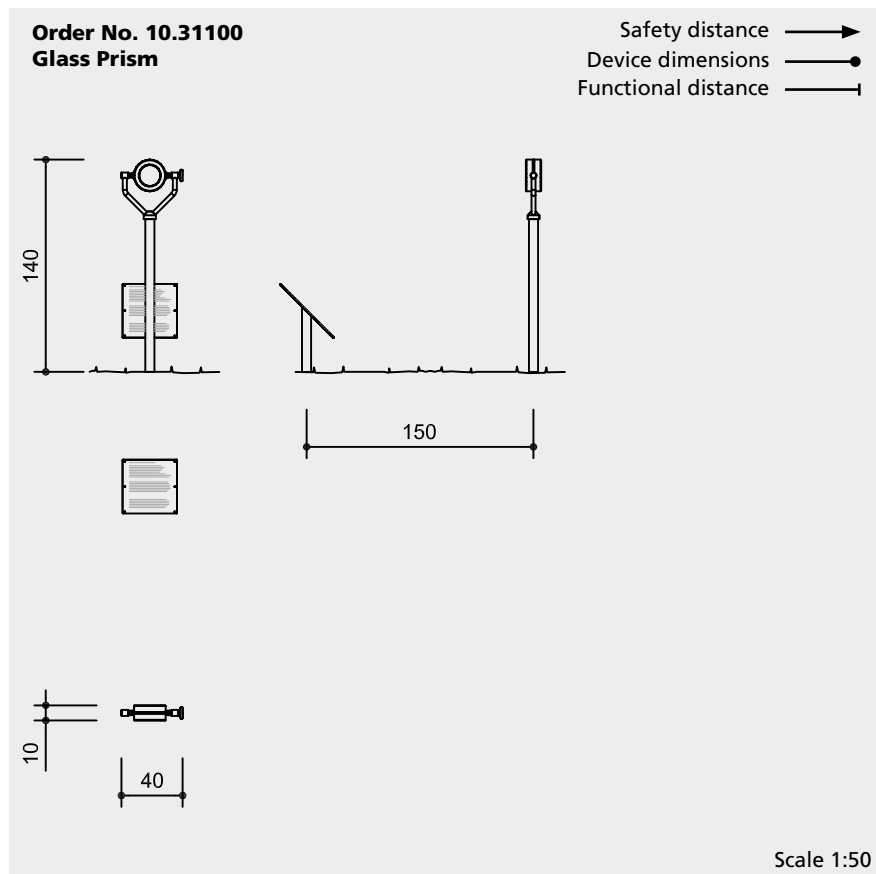


Glass Prism

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible



10.31100



Technical information

Equipment made of stainless steel / aluminium

Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Solid ground glass prism held between two safety glass screens, rotatable and pivotable in all directions, in stainless steel support

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.40 m
Prism	
Edge length	0.10 m
Weight	30 kg
with packaging material	45 kg

Components

- 1 Complete piece of equipment
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

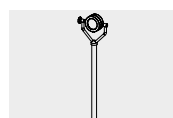
Recommended space
circle diameter 3.00 m

Foundations
2 items 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.31100

Play value

The vertical prism refracts incident light visibly around the corner. You can see this by the fact that when you look through it you don't see what is in front of you but rather people or objects which are in another place. At the same time the white light is also split into the colours of the rainbow and these do not all travel around the corner at the same angle, creating the effect that the people and objects have a coloured ring around them. As you walk around the vertical prism, the colours change and green and purple also appear. The prism column is a welcome addition to our prism family because here several people can observe the phenomenon from various angles and also perhaps observe each other at the same time.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar






Prism Column

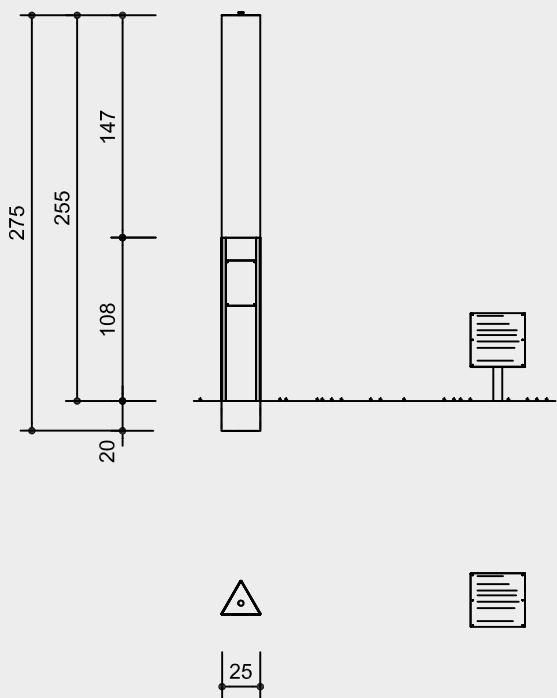
Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.31200

Order No. 10.31200
Prism Column

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Equipment made of stainless steel and large-format acrylic glass prism

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Special algae-free glycol mixture, frostproof to approx. - 20 ° C

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	2.55 m
Angle	0.25 m
Weight	100 kg

Components

- 1 Prism Column
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Installation information

Recommended space circle diameter 3.00 m

Foundations

- 1 item 60 x 60 x 40 cm
- Excavation depth 60 cm

Explanation Board

- 1 item 40 x 40 x 40 cm
- Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.31200



The picture shows the magnifying lens without table.



Play value

Here, the energy of sunlight can be experienced directly. As soon as the sunlight encounters resistance or impermeability, it is converted into warmth which we notice on our skin, for example. Sunlight is collected in the 30 cm magnifying lens and is concentrated to a beam. The rougher and darker the material that it encounters, the more the rays are converted to heat. This can be experienced by carefully placing the hand behind the lens. Even wood can be scorched at the focal point.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



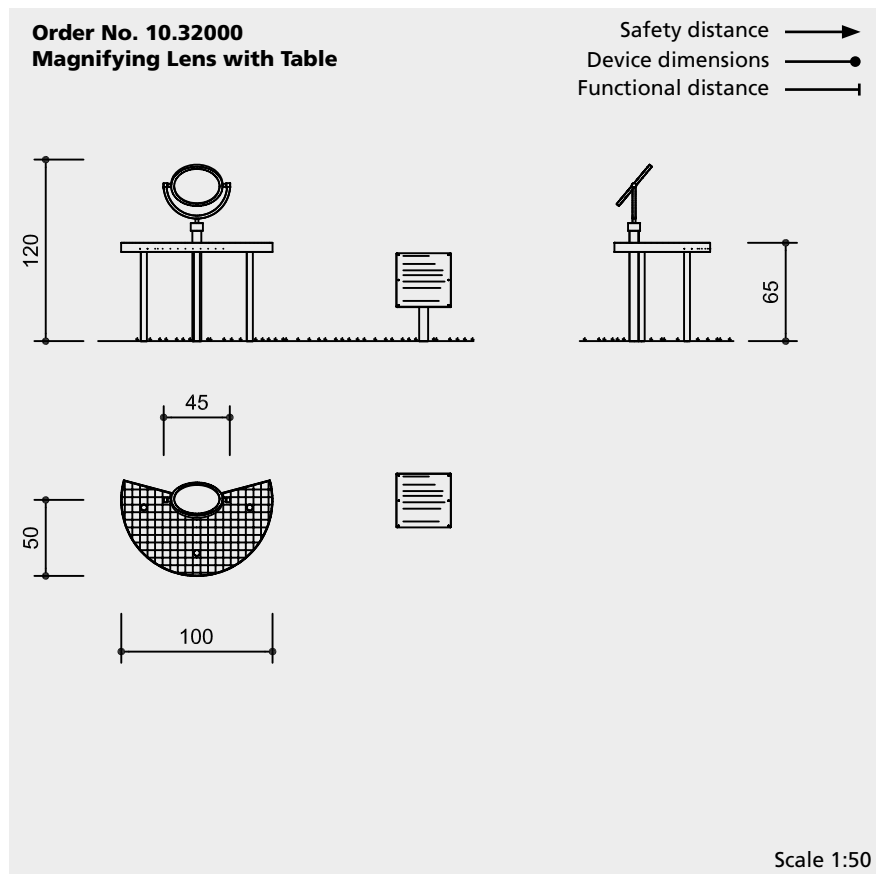
The picture shows the magnifying lens without table.

Magnifying Lens with Table

Vandalism	vulnerable in non-supervised areas
Supervision	absolutely necessary can generate considerable heat
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible



10.32000



Technical information

Equipment made of stainless steel

Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Universal joint support made of stainless steel, rotatable and pivotable in all directions, maintenance-free bearings

Large-sized optical plano-convex collection lens made of shatter-proof acrylic glass

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.20 m
Lens diameter	0.30 m
Weight	75 kg

Components

- 1 Complete piece of equipment with table
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Recommended space circle diameter 3.00 m

Foundations

Magnifying Lens
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Table
3 items 30 x 30 x 40 cm
Excavation depth 60 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.32000



Play value

The double refractive feldspar has a special status among stones. Light is refracted into the spectral colours by means of polarisation at the inner layers and not like in a prism by reflection at the edges. This apparition of colours is caused when light falls on to the transparent stone and, upon closer observation, is refracted into the magnificent colours of the rainbow in the inner layers of the stone. Transparent stones have always been particularly treasured. They combine the element stone, which has a high density, with the fluid light. The chosen double refractive feldspar is set within a moveable, protected mounting which is embedded in a black granite stone.

Recommended for

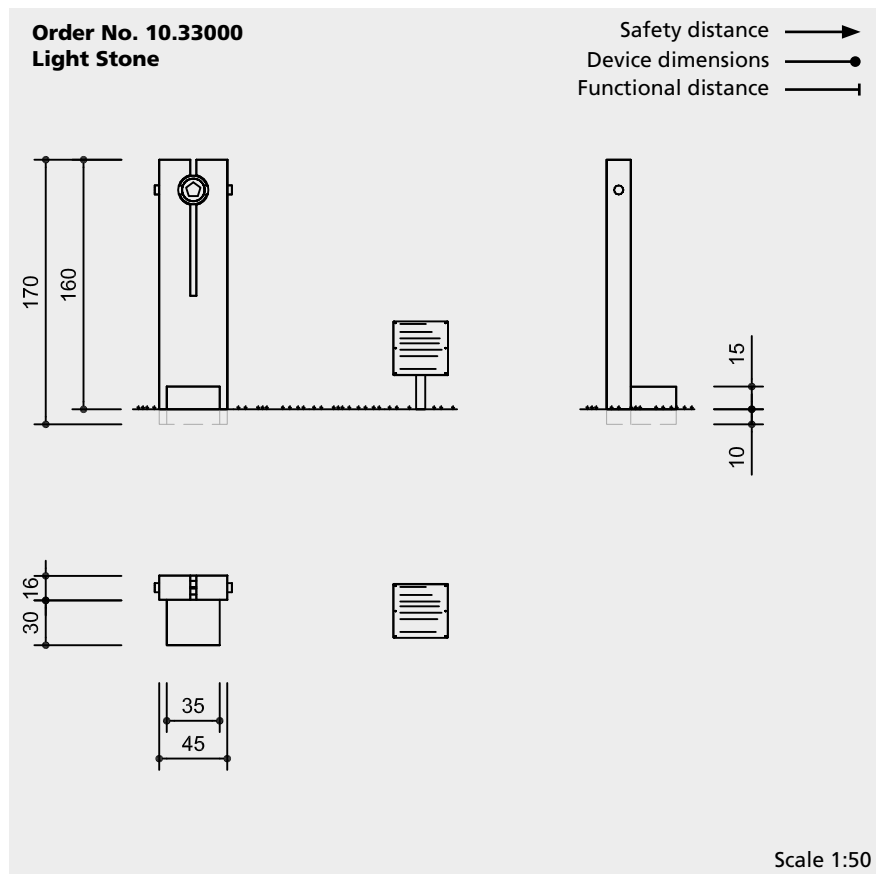
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Light Stone

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.33000



Safety check according to DIN EN 1176

Components

- 1 Light Stone with anchor iron
- 1 Step
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Recommended space
circle diameter 3.00 m

Foundations
1 item 80 x 80 x 60 cm
Excavation depth 70 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:

**Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.**

Technical changes reserved.

Technical information

Black granite block, polished outer surfaces

Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



For more detailed explanation of the quality characteristics see price list.

Light stone of prismatic feldspar, enclosed between two safety glass screens in a stainless steel fixture, water-proof

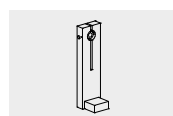
Feldspar can be pivoted to create various prismatic colour phenomena

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.60 m
Width	0.45 x 0.16 m
Prism enclosure diameter	0.20 m
Weight	425 kg
with packaging material	460 kg



10.33000

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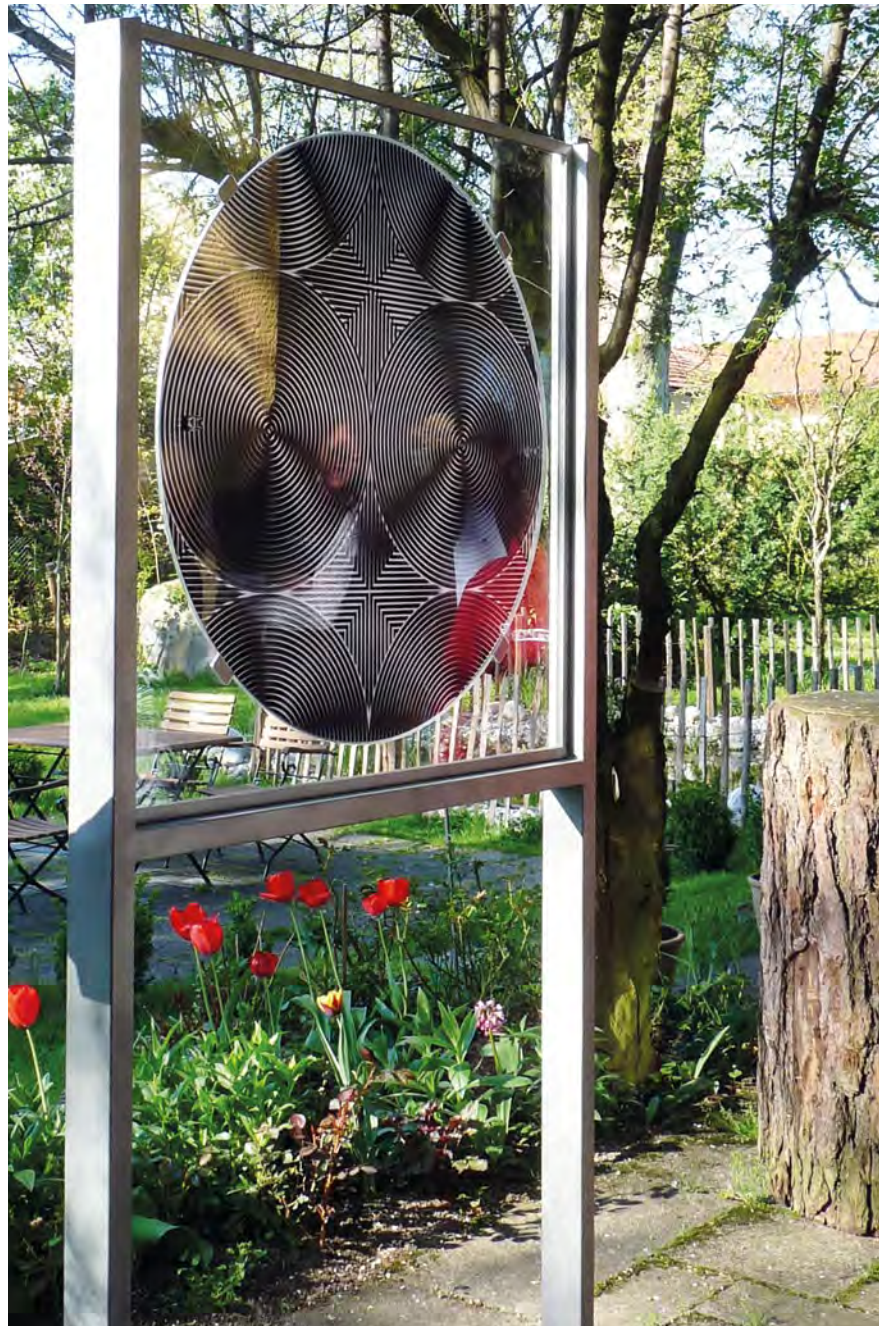
Design W. Graubner based on H. Kükelhaus

Play value

The Moiré Disc is an exciting and surprising perception game. First the front, transparent disc is turned, so that the pattern of each disc lies exactly on top of the other. If it is turned a little further, the lines appear to swell, where the front and back discs still run almost parallel, the angle becomes larger, the lines decrease in size. Thus, the eyes can visualise the connection between the darker areas – new patterns and lines appear. If it is turned further, movements and new movement directions are created: a tremor flows through the disc like a tremolo in music, e.g. in church music. This can also be seen with waves in the water, where the superposition of waves either cancels out the wave swells or, conversely, transforms them into giant waves. Superpositions of waves can be calculated in optics, acoustics and fluid dynamics using the same formula. Therefore, this is about a universal phenomenon which contributes to perceptual understanding.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



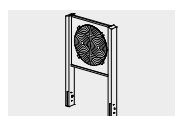
Order No. 10.14005 with support Frame made of stainless steel



Order No. 10.14100 for wall attachment

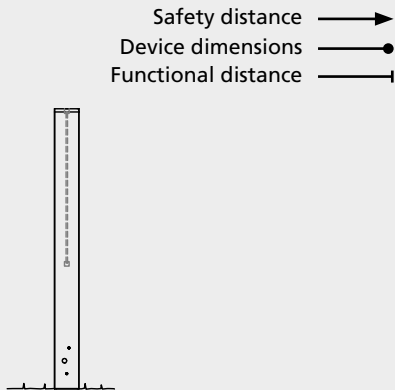
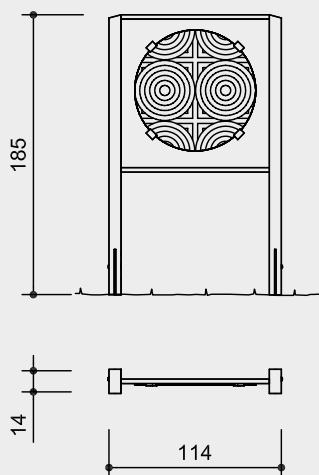
Moiré Disc

Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.14000

Order No. 10.14000
Moiré Disc



Scale 1:50

Safety check according to DIN EN 1176

Components

- 1 Moiré Disc
- 1 Frame with steel feet and installation plate

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 3.00 x 2.00 m

Foundations
 2 items 40 x 40 x 50 cm
 Excavation depth 70 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Equipment also available for wall attachment (Order No. 10.14100) or with frame made of stainless steel (Order No. 10.14005).

Technical information

Equipment made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

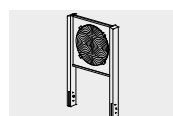
Impact- and weather-resistant acrylic glass held in four corrosion-proof bearings

Large-diameter board with thick, transparent and completely non-smear UV-proof outer disc

Dimensions

(small deviations possible)

Height	1.85 m
Width	1.14 m
Depth	0.14 m
Board	1.00 x 1.00 m
Disc diameter	0.86 m
Weight:	100 kg



10.14000



Photo © Daniel Perales

Experience of sound

living with sound

playing with sound

experiencing sound

Experience of sound

The formative influence of water on the basic movements of life is of the same importance as air is for the formation of sound. Only air has the capacity to condense into rhythms, to dissolve and to vibrate and, because of this it becomes, like no other medium, the bearer for the world of sound.

The way a mass vibrates, i.e. its individual resonance when struck, delivers immediate information to people about the inner qualities of that mass. Thus, a stonemason can precisely discover if and where a stone's inner structure is cracked.

The load bearing capacity of old wooden constructions can be tested by knocking on the wood and analysing the clearness or dullness of the sound. This also works with steel girders. Material properties such as elasticity, humidity, homogeneity and solidity, even the amount of weight resting on it, become audible in the sound.

The sound instruments of the play stations are so-called idiophones, instruments which directly emit sound by their own vibrations. They demonstrate materials with their typical sound characteristics:

Wood formed into boards and tubes, such as the Dendrophone, Tubular Dendrophone and Sound Arch.

Stone as a solid block, such as the Tuning Stone, or like a spar as in the Stone Xylophone, or fixed at one end, as in the Stone Harp.

Metal as a rod, such as used in the Triangle or as a disc, such as the Gong or the Sound Discs, or as a tube like the Tubular Chimes.

Echo Game and Conference are components of our acoustic play area which make three-dimensional experiences in the open air a possibility.

Language enables direct contact between people. The air vibrating in the larynx produces resonance. When speaking, your own body experiences a delicate massage, and this has an invigorating effect on the whole organism. In the Singing Stone this individual resonance is amplified so that you can find your own completely personal note, a pitch, at which this individual resonance is especially amplified thus causing the body to become its own resonator.

The effect of sound waves is demonstrated at our sound pattern station.

Play value

If you place your head in the stone's hollow and hum different notes, it is possible to find the note at which resonance occurs, and this causes a pleasant gently vibrating sensation throughout your body. You are transported into your own private world.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

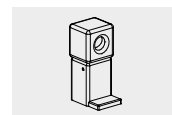
Barrier-free

- Independent play

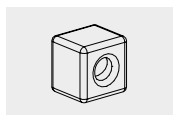


Small Singing Stone

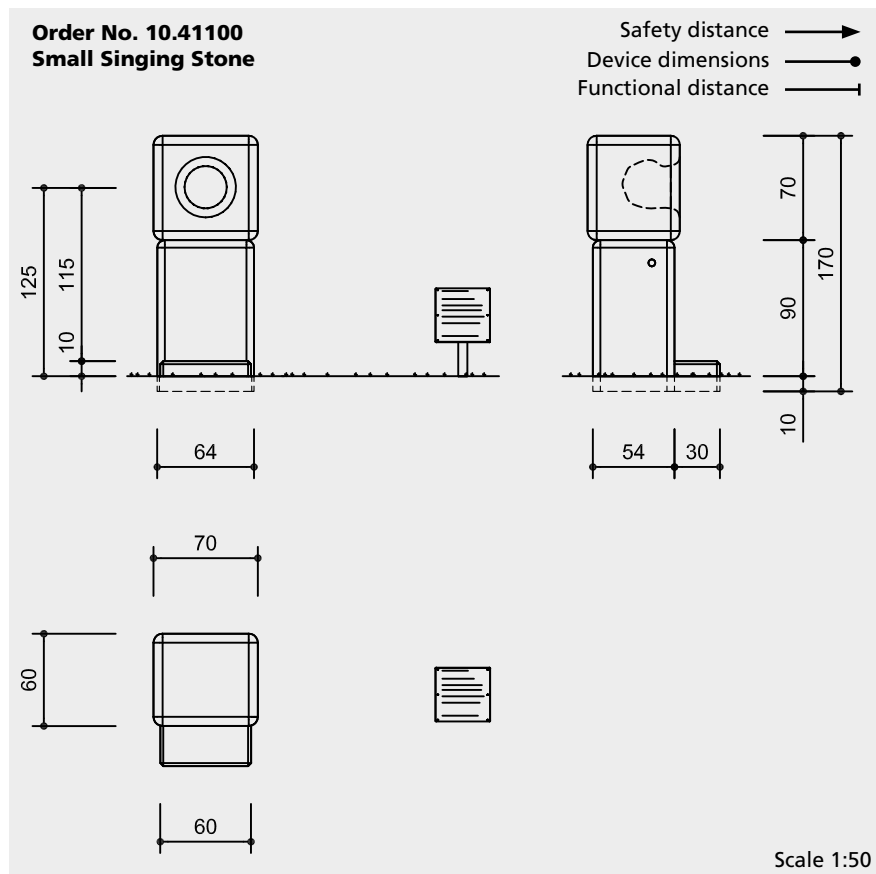
Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.41100



10.41300



Technical information

Hewn cubic monolithic basalt lava singing stone and pedestal with textured surface and strongly rounded edges

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Specially formed cavity (singing hollow) with undercut for optimum resonance effect, with water outlet

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Order No. 10.41100
Small Singing Stone

Height	1.70 m
Height stone	0.70 m
Height step	0.10 m
Width stone	0.60 m
Weight	1440 kg

Order No. 10.41300
Small Singing Stone

Height stone	0.70 m
Width stone	0.60 m
Weight	570 kg

Components

Order No. 10.41100

- 1 Small Singing Stone with 2 anchor irons
- 1 Pedestal
- 1 Step
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Order No. 10.41300

- 1 Small Singing Stone with 2 anchor irons
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Installation information

Recommended space
4.00 x 3.00 m

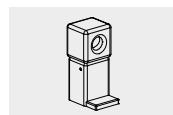
Foundations

- Order No. 10.41100**
Small Singing Stone
1 item 100 x 80 x 60 cm
Excavation depth 70 cm
Recess 5 x 5 x 20 cm
- Explanation Board**
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

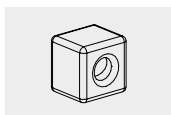
Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
Technical changes reserved.

Trademark

30 2005 500 000 Germany
40-0682207 South Korea



10.41100



10.41300



Photo © Daniel Perales

Play value

If you put your head into the hollow of this giant stone, which weighs tonnes, and hum different notes, you can retreat into a separate, complete world. You can discover „your“ note where resonance occurs and this causes a gentle sensation throughout your whole body. The organic and striking six to eight sided column shape is like a natural monument, something which is nowadays difficult to find.

Recommended for

- School children
- Young people
- Adults
- Older people
- Supervised play areas such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play






Large Singing Stone

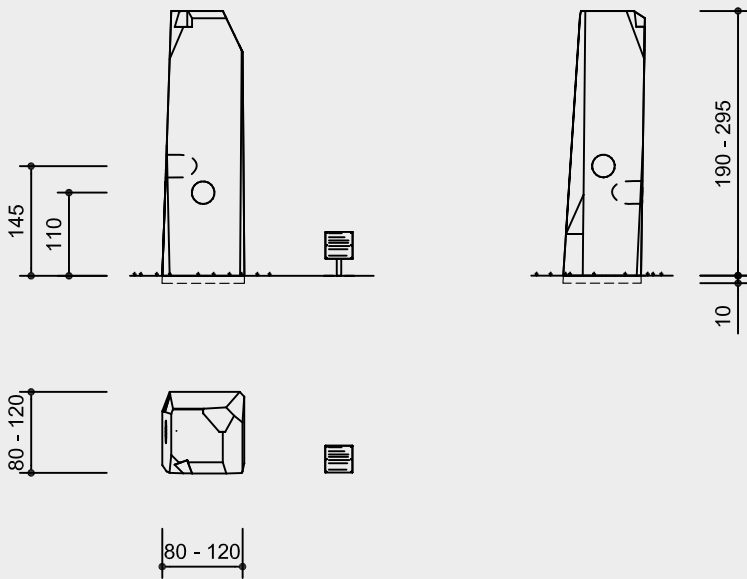
Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation board	included
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.42020 - 10.42040

Order No. 10.42020 / 10.42030 / 10.42040
Large Singing Stone

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:100

Technical information

Naturally formed basalt column.

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Each stone has its own individual shape. The side edges haven't been created by a stone mason but have existed in this shape for hundreds of years in stone formations. Traces of water and sediments can be seen clearly.

Specially formed cavities (singing hollows) with undercut for optimum resonance effect, with water outlet

Stable due to a precisely worked base

Board and support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Base side of length	0.80 - 1.20 m
Height	
Order No. 10.42020	2.00 - 2.49 m
Order No. 10.42030	2.50 - 2.90 m
Order No. 10.42040	2.91 - 3.05 m
Singing hollows height	1.10 / 1.45 m
Weight depends on size	2.5 - 4.5 t

Components

- 1 Large Singing Stone with 2 singing hollows and 1 anchor iron
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Installation information

Recommended space
 4.00 x 3.00 m

Foundations
 1 item 130 x 130 x 70 cm
 Recess 5 x 5 x 50 cm
 Blinding layer
 1 item 130 x 130 x 5 cm
 Total excavation depth 80 cm

Explanation Board
 1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.



10.42020 - 10.42040



Photo © Valentin Luthiger

Play value

It is a well-known fact that, together with the eyes, the ears perceive a great amount of sensory impressions. However, not many of us know how many interesting sounds can be produced by tapping a stone.

The ear helps us to „see“ the invisible characteristics of the stone such as hardness, mass and elasticity. Experience of sound is experience of contact. The vibration of the stone is not only conveyed by the eardrum but also via the human skin and - in the case of the Tuning Stone, intensively by the hands. The Tuning Stone is similar to a large tuning fork. The stone has two vertical cuts running down two-thirds of its length, and the split elements can be vibrated. This is achieved by lightly tapping the stone with the flat of the hand or by rubbing the stone firmly with water. This requires a number of attempts and some practice. The participant must achieve an empathy with the stone in order to find the correct frequency, and this enables a special connection to be made with the otherwise cold material.

Recommended for

- School children
- Young people
- Adults
- Older people
- Supervised play areas such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play

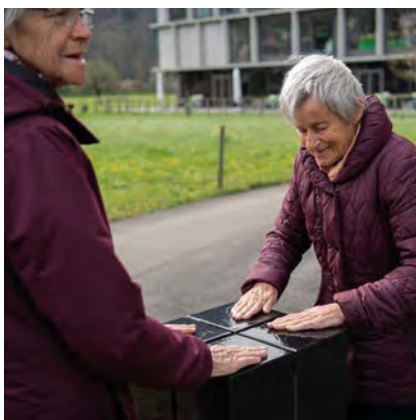
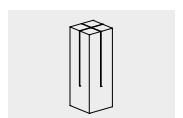


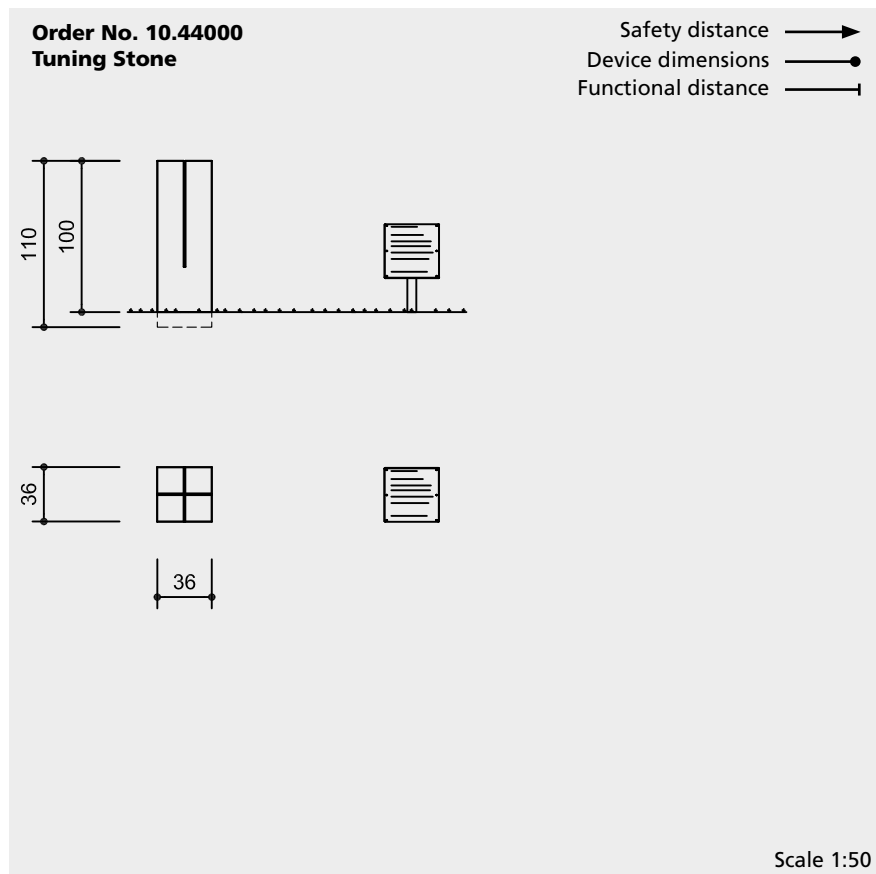
Photo © Valentin Luthiger

Tuning Stone

Acoustic effect	soft
Vandalism	not vulnerable
Supervision	recommended
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.44000



Technical information

Black granite block,
polished outer surfaces

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

A long series of tests was necessary to find a highly dense stone that would produce such a sound phenomenon. The stone blocks are individually chosen, sawn, smoothed and polished.

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Total height	1.10 m
Width	0.36 m
Depth	0.36 m
Weight	440 kg
with packaging material	463 kg

Components

- 1 Tuning Stone
with 1 anchor iron
- 1 Explanation Board
with support for dowelling
and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Recommended space
Circle diameter 3.00 m

Foundations
1 item 80 x 80 x 60 cm
Excavation depth 70 cm
Recess 5 x 5 x 20 cm

Explanation Board

1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:

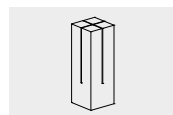
**Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.**

Technical changes reserved.

Tip

Place close to water so that the hands, or rather the stone, can be wetted.

We recommend our Water Dish with stand post (Order No. 10.44001).



10.44000



Photo © Daniel Perales

Play value

With this stone you can create wonderful notes which resemble the heavenly sounds of a harp. The precisely measured, deep cuts enable the stone to produce a full range of tones. The shorter the cut, the higher the tone. Different notes up to an octave apart can be created.

Recommended for

- School children
- Young people
- Adults
- Supervised play areas such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar
- Swimming pools without supervision, such as outdoor pools, adventure pools or similar

Barrier-free

- Independent play



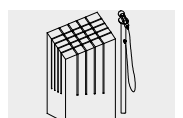
Photo © Daniel Perales



Photo © Daniel Perales

Stone Harp

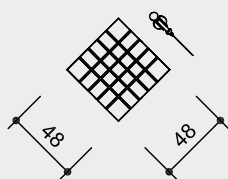
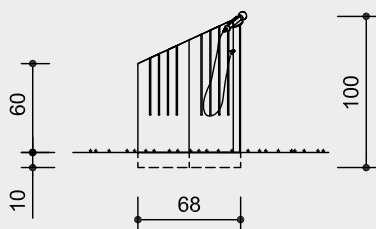
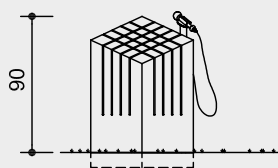
Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.45000

Order No. 10.45000
Stone Harp

Safety distance →
 Device dimensions ●
 Functional distance —



Scale 1:50

Technical information

Highly-dense black granite with polished outer surfaces

Sintered bush

For all reciprocating movements we use sintered plain bearings which are self-lubricating in use and can easily be exchanged if necessary



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

The top surface is angled in order to create different sounds, cuts are regularly spaced

Stand post for beater made of stainless steel

Beater of black synthetic material, suspension made of stainless steel cable

Dimensions

(small deviations possible)

Total height	1.00 m
Width	0.48 m
Depth	0.48 m
Weight	600 kg

Components

- 1 Stone Harp with 1 anchor iron
- 1 Beater with stand post for dowelling and attachment, incl. heavy duty anchor

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 3.00 x 3.00 m

Foundations

Stone Harp
 1 item 110 x 80 x 50 cm
 Excavation depth 60 cm
 Recess 5 x 5 x 20 cm

Stand post for beater
 1 item 40 x 40 x 40 cm
 Excavation depth 50 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.45000

Play value

Stones are not mute. Being able to generate a sound from the oversized stones of the giant xylophone is a moving experience. Tapping the solid, heavy granite, marble or volcanic stone with a rubber beater produces a wealth of sounds and harmonies which has an exciting effect on people. Stonemasons recognise stones and their internal characteristics by their sound. Density, hardness and homogeneity of stones are shown during tapping by differing pitch and tonal quality.



© Richter Spielgeräte GmbH 11/22

The Stone Xylophones are created from specially chosen blocks of black granite. This ensures a high-quality sound and break-resistance.

Recommended for

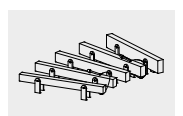
- School children
- Young people
- Adults
- Supervised play areas such as schools, after school programmes or similar
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play

Acoustic effect	medium
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible




Stone Xylophone

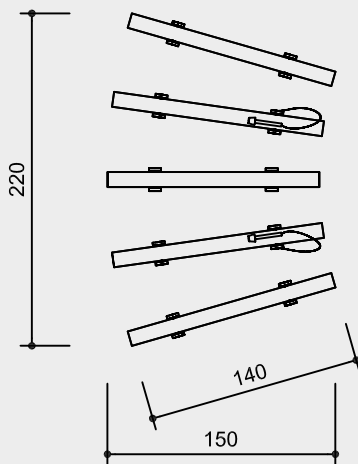


10.46000

Design W. Graubner based on H. Kükelhaus

Order No. 10.46000
Stone Xylophone

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Beater made of black synthetic material, suspension made of stainless steel cable

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

The selected granite stones must be very sturdy and yet produce a good sound. The stones are polished on all sides and tuned to each other.

Dimensions

(small deviations possible)

Height	0.30 m
Length	1.40 m
Width	2.20 m
Weight	490 kg

Components

5 Stones with supporting constructions for dowelling and 2 beaters, incl. 12 heavy duty anchors

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 4.00 x 3.00 m

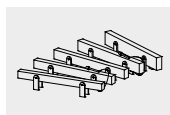
Foundations

1 item 50 x 250 x 30 cm
 Excavation depth 40 cm
 1 item 40 x 200 x 30 cm
 Excavation depth 40 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.46000

Play value

Tone is not just a noise but a sound which the ear perceives as pure and of constant pitch. Each material has its own sound pattern. Metal bars create a particularly high-quality sound if bent into a triangle, and make especially pure vibrations audible. Familiar physical properties are transformed into amazingly simple aspects of life. An increase in the triangle size increases the quantity of upper vibrations clearly and noticeably. It is a learning experience for children and adults and this knowledge reinforces their experiences.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play



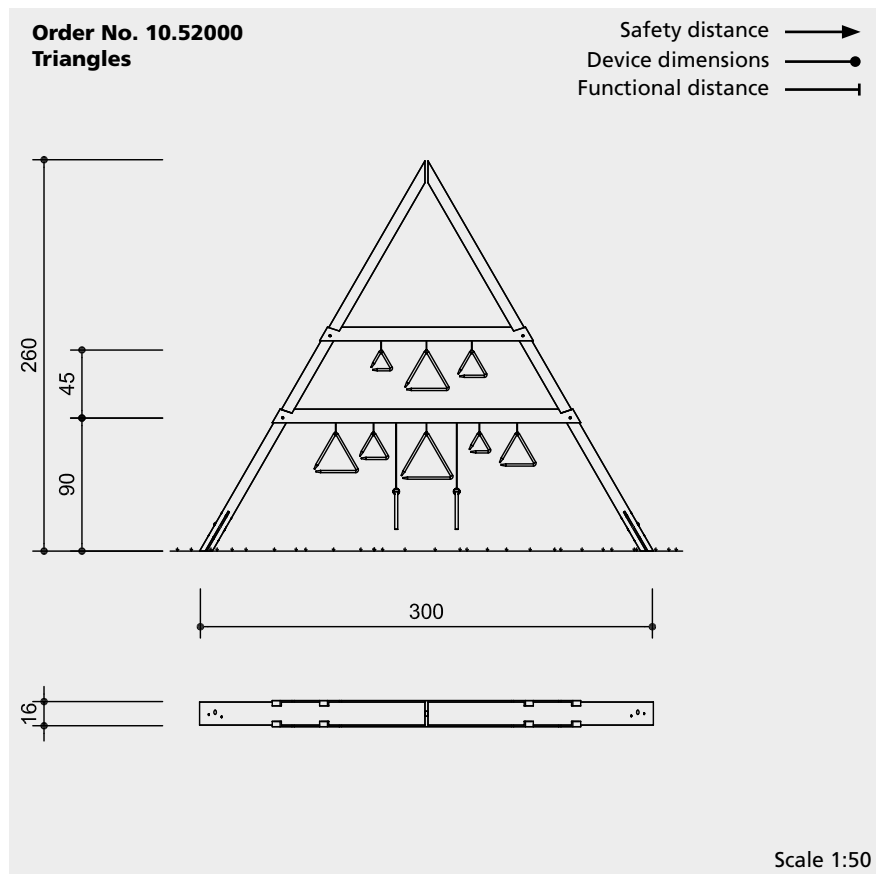
Special version made of stainless steel

Triangles

Acoustic effect	medium
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	not necessary



10.52000



Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Wooden joints in traditional carpentry quality

Special hardened stainless steel triangles

Beater and cables made of stainless steel

Dimensions

(small deviations possible)

Height	2.60 m
Width	3.00 m
Depth	0.16 m
Weight	100 kg

Components

- 1 Support frame with steel feet,
8 triangles with 5 different tones
and 2 beaters

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
5.00 x 2.50 m

Foundations
2 items 60 x 40 x 45 cm
Excavation depth 65 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
Technical changes reserved.



10.52000



Photo © Marina Pavlova

Play value

The skin can also perceive sound. Sound waves, especially those from gongs, are not only perceived by the ear but also by the skin. Every material has its own typical sound. In order to create this sound, the material needs to be made into a typical form. The gong, along with the triangle and bells, is a special design for metal.

Recommended for

- School children
- Young people
- Adults
- Older people
- Supervised play areas such as schools, after school programmes or similar
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play



Photo © Marina Pavlova



Acoustic effect	strong; not suitable for residential areas
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible

Gong

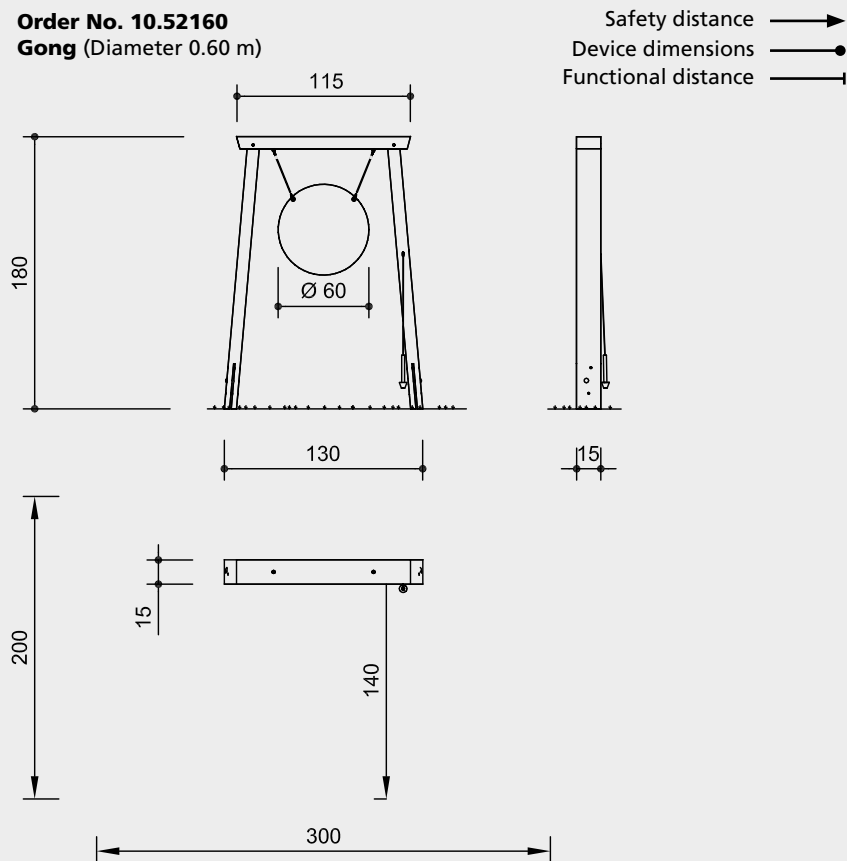


10.52160

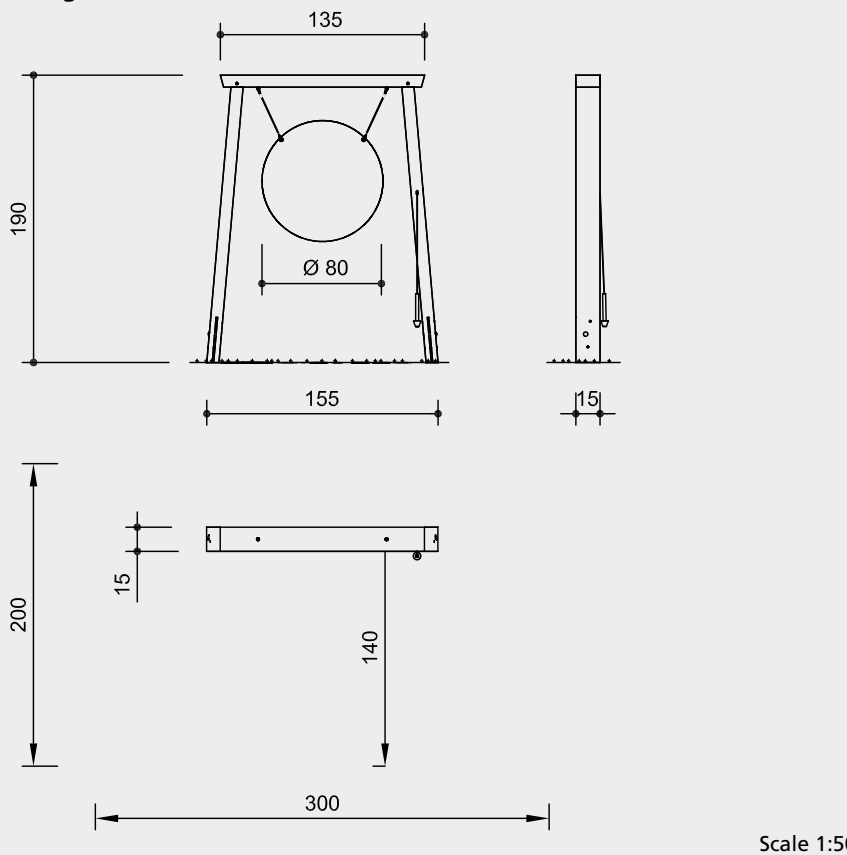


10.52180

Order No. 10.52160
Gong (Diameter 0.60 m)



Order No. 10.52180
Gong (Diameter 0.80 m)



Scale 1:50

Technical information

Frames made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Gong made of V2A 4 mm thick with 2 holes for suspension.

Beater with rubber head, suspension made of stainless steel cable

Dimensions

(small deviations possible)

Order No. 10.52160

Height	1.80 m
Width	1.15 / 1.30 m
Depth	0.15 m
Gong diameter	0.60 m
Weight	75 kg

Order No. 10.52180

Height	1.90 m
Width	1.35 / 1.55 m
Depth	0.15 m
Gong diameter	0.80 m
Weight	100 kg

Installation information

Recommended space
 3.00 x 2.00 m

Foundations
 2 items 50 x 50 x 50 cm
 Excavation depth 70 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.

Components

1 Support frame with steel feet,
 1 gong and 1 beater

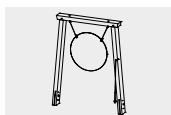
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Explanation board on request



10.52160



10.52180



Photo © Daniel Perales

Play value

The force and rhythm with which the Metal Gongs are struck gives rise to different sounds and resonances. Each metal disc produces a particular range of sound. Together they make melodic games and sound experiments possible. There are e.g. calming sounds which find resonance in particular areas of the body, head, neck, chest or stomach, depending on pitch. The type of percussion, with a percussion beater or by hand, produces sounds which generate melodic patterns and rhythms. Several people can play simultaneously and create music by listening to each other.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Supervised play areas, such as kindergartens, schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play

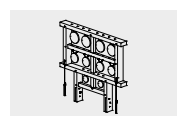


Photo © Daniel Perales






Metal Gongs

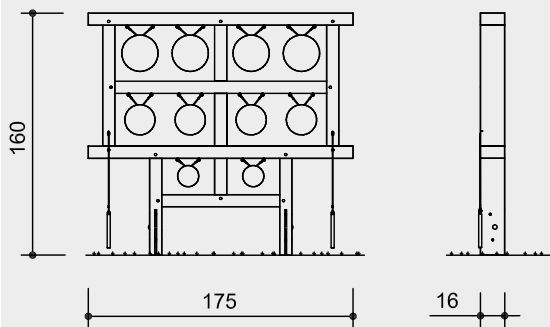
Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.52200

Order No. 10.52200
Metal Gongs

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

High-quality metal discs in brass, suspension made of stainless steel cable

Beater made of PE, suspension made of stainless steel cable

Dimensions

(small deviations possible)

Height	1.60 m
Width	1.75 m
Depth	0.16 m
Weight	120 kg

Components

- 1 Support frame with steel feet, 10 metal discs and 2 beaters

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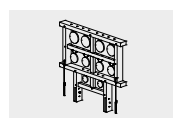
Explanation board on request

Installation information

Recommended space
 3.00 x 2.00 m

Foundations
 1 item 150 x 60 x 50 cm
 Excavation depth 70 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.



10.52200

Play value

Just like a harp, you can pluck the strings and create harmonic, relatively deep and long-lasting multiphonic notes. The vibration of the strings and the ensuing sound can literally be seen with the eyes. The spectrum of notes extends over a complete octave. The tensioned stainless steel plate makes the tensile force created by the nine strings visual and has the effect of amplifying the sound.

Recommended for

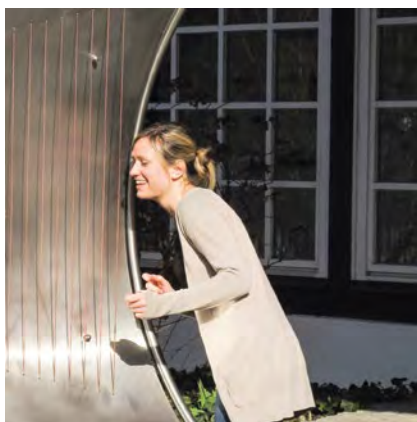
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play

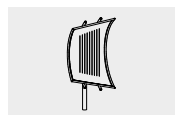
Note

To achieve a good sound quality, this equipment must be tuned after installation and the pitch must be checked at regular intervals.






Sound Chord

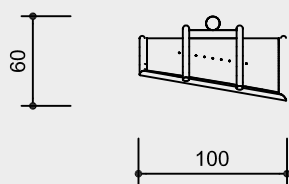
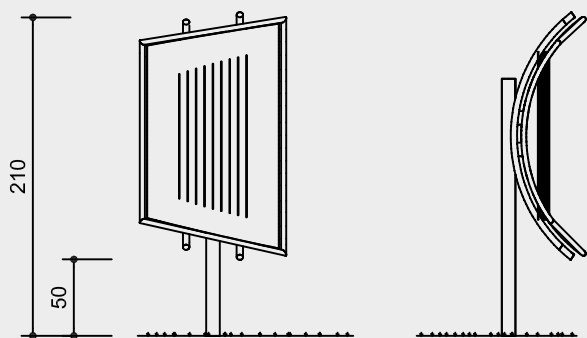
Acoustic effect	soft
Vandalism	vulnerable in non-supervised areas
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.52300

Order No. 10.52300
Sound Chord

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Equipment and strings made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Dimensions

(small deviations possible)

Height	2.10 m
Width	1.00 m
Depth	0.60 m
Weight	120 kg

Components

- 1 Complete piece of equipment with 9 strings, for dowelling and 4 heavy duty anchors

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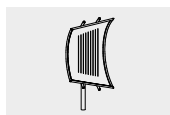
Explanation board on request

Installation information

Recommended space
 2.50 x 2.00 m

Foundations
 1 item 60 x 60 x 50 cm
 Excavation depth 70 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.



10.52300

Play value

If the respective shape and alloy is used for metal pipes to create the perfect sound then they are called Tubular Chimes. They have been specially tuned for optimal sound with 1 major and 1 minor note around a common central note. Tubular Chimes are, like other orchestral instruments, tuned precisely. No other instrument can produce such a fine and lasting sound.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play



Photo © imagIN visual promotions






Tubular Chimes

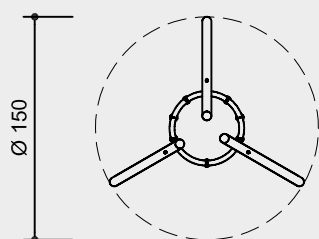
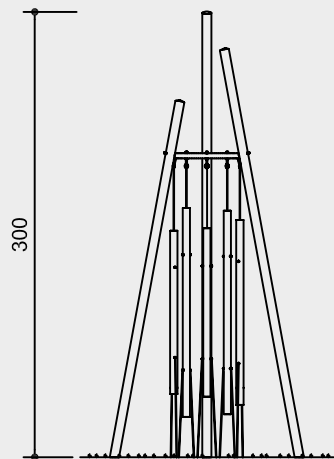
Acoustic effect	medium to strong
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.52400

Order No. 10.52400
Tubular Chimes

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Technical information

Supporting tubes, ring, foot plates and base plate made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Tuned brass sound tubes

Tensioning cable made of stainless steel

Beater made of plastic, suspension made of stainless steel cable

Dimensions

(small deviations possible)

Height	3.00 m
Diameter	1.50 m
Sound tubes diameter	48 x 4 mm
Weight	90 kg

Components

- 3 Supporting tubes on foot plates for dowelling
- 1 Ring with 5 sound tubes and tensioning cables on base plate, each to be screwed in, with 14 heavy duty anchors
- 2 Beaters

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Explanation board on request

Installation information

Recommended space
 Circle diameter 3.00 m

Foundations
 1 item triangular,
 Length of the edge 175 cm,
 20 cm high,
 Excavation depth 30 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.52400

Play value

The Dendrophone is made up of harmoniously tuned sound boards which have been arranged like an oversized xylophone. If the lengths of the sound elements are changed different tones are produced and these are tuned and amplified with resonators. Hitting it, either with a percussion beater or by hand, produces warm sounds and these can be made into melodies and rhythms. Several people can play on the equipment at the same time and create music together.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play



Photo © Ross Gilmore



Photo © Daniel Perales



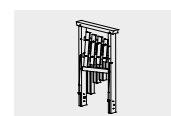
Order No. 10.53002 Dendrophone - double field, Photo © Daniel Perales



Photo © Daniel Perales

Dendrophone - single field
Dendrophone - double field

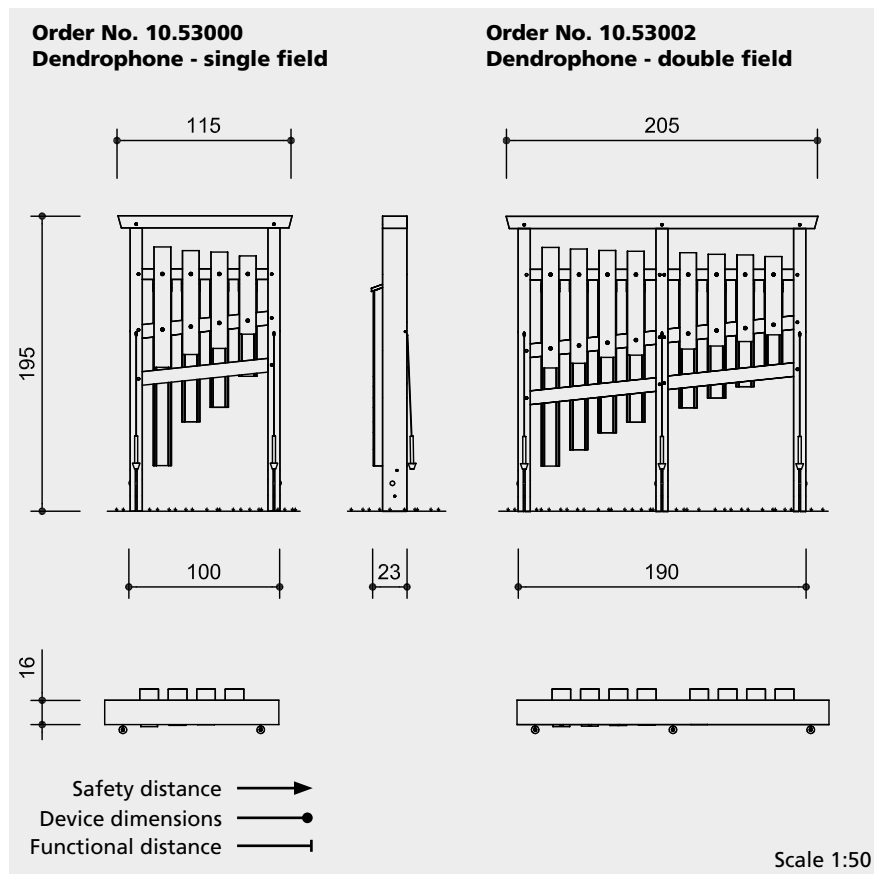
Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.53000



10.53002



Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Carefully chosen tuned sound boards made of cherry wood

The vertical resonators are designed to create optimal sound with each sound board

Only wood joints in accordance with traditional carpentry

Beater with rubber head, suspension made of stainless steel cable

Dimensions

(small deviations possible)

Order No. 10.53000 Dendrophone - single field

Height	1.95 m
Width	1.15 / 1.00 m
Depth	0.23 m
Weight	75 kg

Order No. 10.53002 Dendrophone - double field

Height	1.95 m
Width	2.05 / 1.90 m
Depth	0.23 m
Weight	140 kg

Components

Order No. 10.53000

- 1 Single field with steel feet, 4 sound boards and 2 beaters

Order No. 10.53002

- 1 Double field with steel feet, 8 sound boards and 3 beaters

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Explanation board on request

Installation information

Recommended space

Dendrophone - single field

2.50 x 2.10 m

Dendrophone - double field

2.50 x 3.00 m

Foundations

Order No. 10.53000

Dendrophone - single field

2 items 40 x 40 x 50 cm

Excavation depth 70 cm

Order No. 10.53002

Dendrophone - double field

3 items 40 x 40 x 50 cm

Excavation depth 70 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.53000



10.53002



Order No. 10.53102 Tubular Dendrophone - double field



Play value

The Tubular Dendrophone creates music to listen to and feel, with harmoniously tuned wooden pipes which are both sound and resonance elements. If you place your hand on a ringing sound pipe it sends the vibration of the wood through your body. The sound of the wood combines with the resonance of the enclosed air in the pipes.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Supervised play areas such as kindergartens, schools, after school programmes or similar
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play



Order No. 10.53100 Tubular Dendrophone - single field

Tubular Dendrophone - single field
Tubular Dendrophone - double field

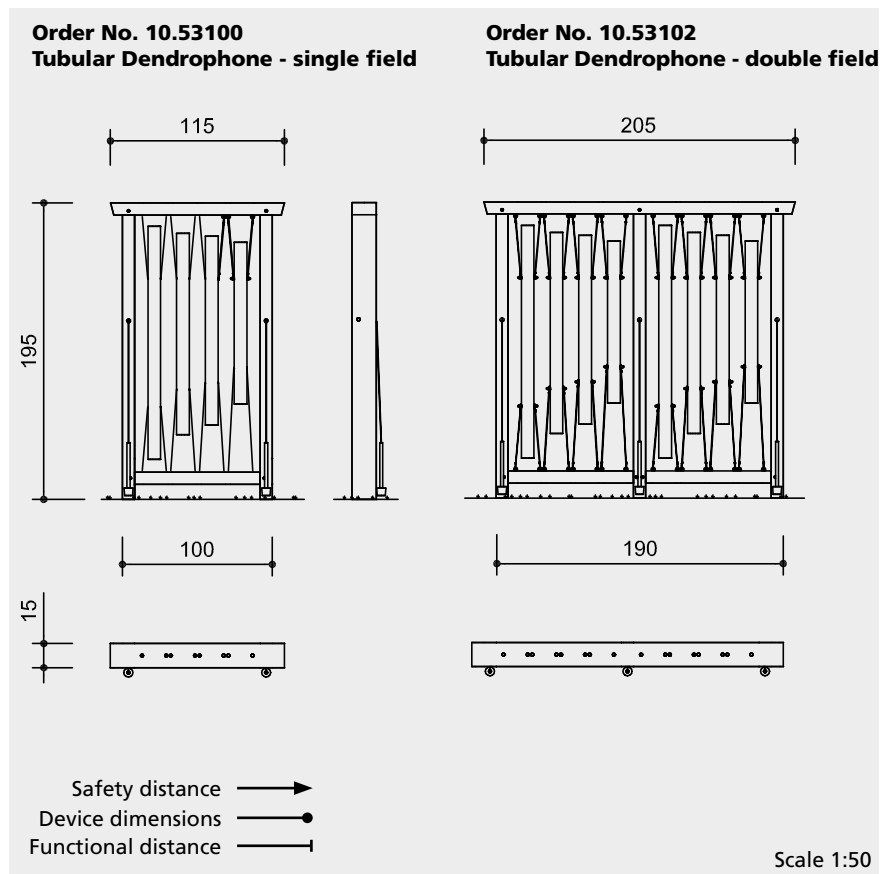
Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.53100



10.53102



Technical information

Frame made of oak

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Binary sound tubes of milled and turned cherry wood bonded together

Special suspension with low vibration absorption made of stainless steel and brass

Beater with rubber head, suspension on a stainless steel cable

Dimensions

(small deviations possible)

Order No. 10.53100	
Tubular Dendrophone - single field	
Height	1.95 m
Width	1.15 / 1.00 m
Depth	0.15 m
Weight	85 kg

Order No. 10.53102	
Tubular Dendrophone - double field	
Height	1.95 m
Width	2.05 / 1.90 m
Depth	0.15 m
Weight	160 kg

Components

- Order No. 10.53100**
 1 Single field with steel feet,
 4 sound tubes and 2 beaters
- Order No. 10.53102**
 1 Double field with steel feet,
 8 sound tubes and 3 beaters

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 Explanation board on request

Installation information

- Recommended space
Tubular Dendrophone - single field
 2.50 x 2.10 m
Tubular Dendrophone - double field
 3.00 x 2.50 m

- Foundations
Order No. 10.53100
Tubular Dendrophone - single field
 2 items 40 x 40 x 50 cm
 Excavation depth 70 cm
Order No. 10.53102
Tubular Dendrophone - double field
 3 items 40 x 40 x 50 cm
 Excavation depth 70 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.



10.53100



10.53102

Play value

The Sound Arch which consists of 5 wooden sound tubes can be played from both sides at the same time. This has the effect of particularly encouraging the participants to play together and listen to each other.

Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Supervised play areas such as kindergartens, schools, after school programmes or similar
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play

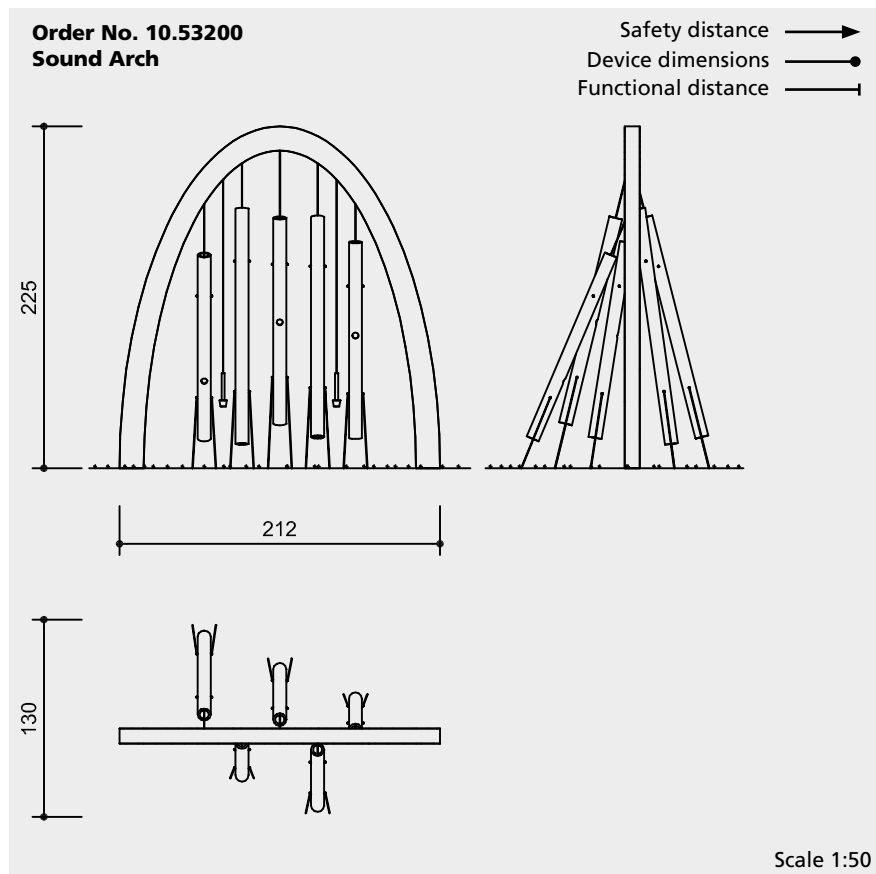


Sound Arch

Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.53200



Technical information

Bow made of non-impregnated mountain larch

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Laminated wood beams

Laminated wood beams made of non-impregnated larch, glued according to EN 14080:2013; for very large timber cross-sections; comparatively low shrinkage, almost completely free of cracks



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Special suspension with low vibration absorption made of stainless steel and brass

Beater with rubber head, suspension made of stainless steel cable

Binary sound tubes of milled and turned cherry wood bonded together

Components

- 1 Wooden bow with steel feet for dowelling
- 5 Sound tubes with tensioning cables and base plates for dowelling each, with 18 heavy duty anchors
- 2 Beaters

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Explanation board on request

Installation information

Recommended space
4.50 x 3.00 m

Foundations
2 items 50 x 50 x 50 cm
Excavation depth 70 cm
1 item 175 x 30 x 30 cm
Excavation depth 45 cm
1 item 100 x 30 x 30 cm
Excavation depth 50 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.

Dimensions

(small deviations possible)

Height	2.25 m
Width	2.12 m
Depth	1.30 m
Weight	110 kg



10.53200

Play value

These stylised tree shapes with their different sound leaves, sound branches and drums are particularly suited to parks and atmospheric gardens. Exciting music can be experienced when played together. The sounds range from the melancholic sound of the Steeldrum to the cheerful one of the Sound Leaf. These robust objects can be played by hand or with the attached hammers.

Sound Leaf

The individual sound plates have a tone like the clang of a cymbal. The stylised leaves are attached to the tree in a way that they can move freely. They produce a very cheerful and lively sound.

Sound Tree

The sound bars are like powerful chimes and represent branches. They are also used to make xylophones.

Steeldrum

The melodic, sometimes also melancholic sound of the Steeldrum fascinates people. It symbolises the wooden drums that are made from hollowed tree trunks in many different cultures. The Steeldrum was first made from old oil barrels after the Second World War by people from the Caribbean. Skilful hammering creates individual areas in the base each having their own different tone.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar



Order No. 10.54100 Sound Tree



Order No. 10.54000 Sound Leaf

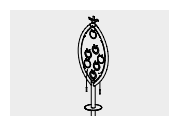


Order No. 10.54200 Steeldrum

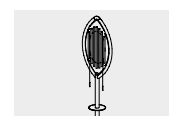


Acoustic effect	medium
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	not possible

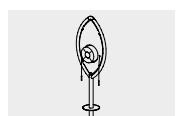
**Sound Leaf
Sound Tree
Steeldrum**



10.54000



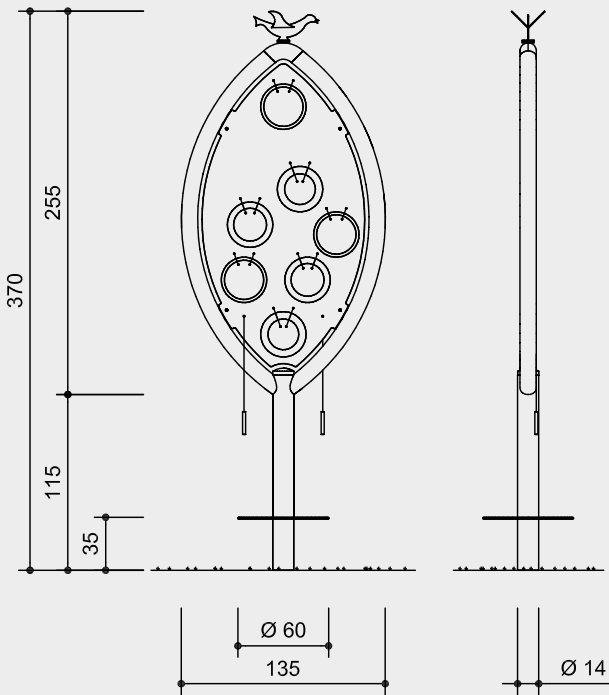
10.54100



10.54200

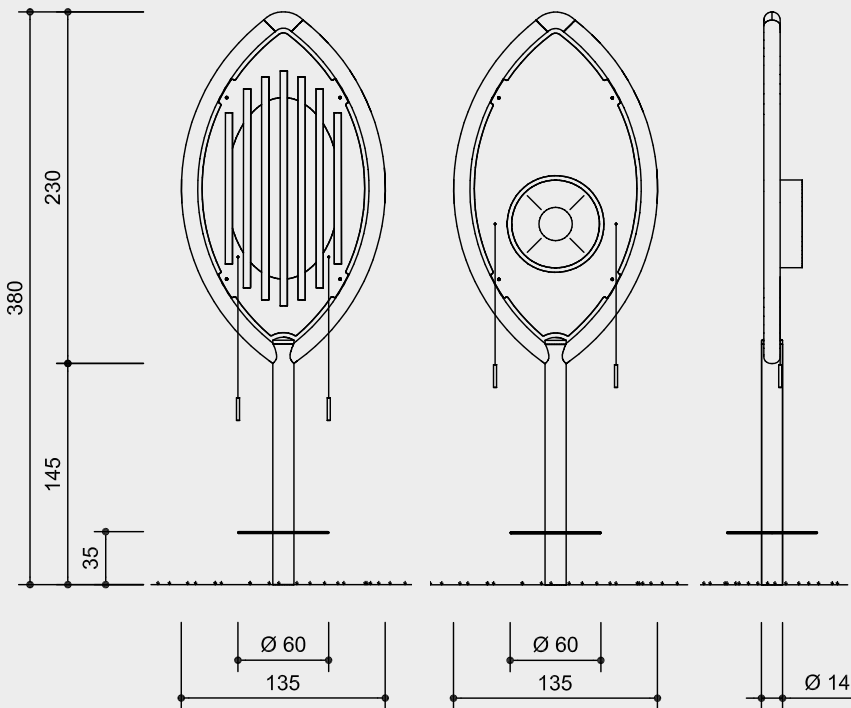
Order No. 10.54000
Sound Leaf

Safety distance →
Device dimensions ●—
Functional distance —|



Order No. 10.54100
Sound Tree

Order No. 10.54200
Steeldrum



Scale 1:50

Technical information

Equipment made of stainless steel;
in stylized tree shape

Ground anchor

All parts used for anchoring to the
ground are made of hot-dip galvanised
steel or stainless steel



**For more detailed explanation of the
quality characteristics see price list.**

Order No. 10.54000
Sound Leaf

Sound plates made of brass
Beater made of PE

Order No. 10.54100
Sound Tree

Tubes made of brass
Beater made of PE

Order No. 10.54200
Steeldrum

Meditation pan made of stainless steel
Powder-coated
Beater made of PE

Dimensions

(small deviations possible)

Order No. 10.54000
Sound Leaf

Height	3.70 m
Headroom	0.35 m
Width	1.35 m
Weight	180 kg

Order No. 10.54100
Sound Tree
Order No. 10.54200
Steeldrum

Height	3.80 m
Headroom	0.35 m
Width	1.35 m
Weight	180 kg

Components

- 1 Complete piece of equipment
with Foundation frame

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Explanation board on request

Installation information

Recommended space
Circle diameter 3.00 m

Foundation
1 item 130 x 130 x 70 cm
reinforced
Blinding layer
130 x 130 x 5 cm
Total excavation depth 115 cm

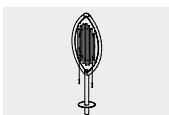
Attention:

**Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.**

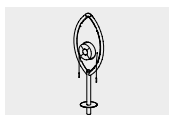
Technical changes reserved.



10.54000



10.54100



10.54200



Photo © Daniel Perales

Play value

Sound behaves in similar ways to water which is why it can be directed through tubes as was done in old ship's telephones. Between two and four speaking/ listening stations can be installed and these are connected by underground pipes and a special sound distributor. It is possible to communicate over unusually long distances without the use of any electronic amplifiers. However, visual contact makes sense.

Recommended for

- Kindergarten children
- School children
- Supervised play areas, such as kindergartens, schools, after-school programmes or similar
- Public play areas without supervision such as playgrounds, parks or similar

Barrier-free

- Independent play



Photo © Daniel Perales



Photo © Anton Donikov



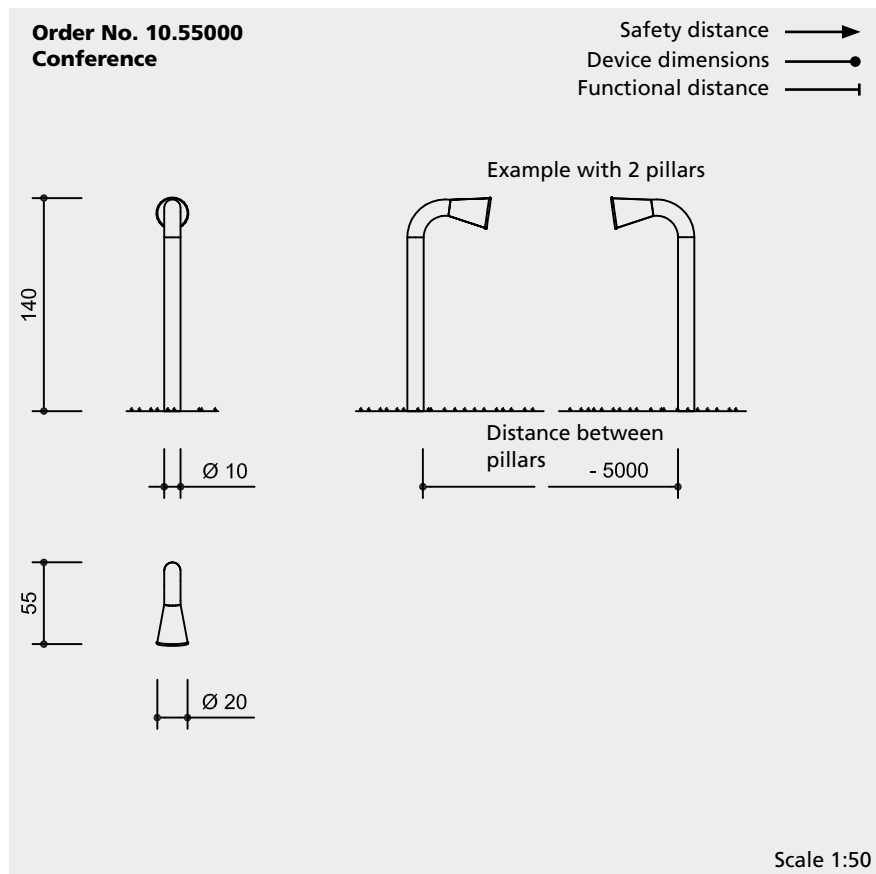
Photo © Daniel Perales

Conference

Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	not possible



10.55000



Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Cone shaped opening with perforated sheet cover

Dimensions

(small deviations possible)

Height	1.40 m
Tube diameter	0.10 m
Speech and Listening tube	0.20 m
Depth	0.55 m
Weight	21 kg per pillar

Components

Depending on the number ordered
2 - 4 pillars with coupling for dowelling
6 Heavy duty anchors per pillar

Minimum number is 2 pillars

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Explanation board on request

On-site work

Supply and installation of the required underground pipes as well as the ducting for connecting materials according to our specifications

Installation information

Recommended space
2.00 x 3.00 m per pillar

Foundations
1 item 60 x 60 x 70 cm per pillar
Excavation depth 90 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
Technical changes reserved.



10.55000



Play value

Speak into the acoustic cone and listen to the multiple echo. The further the sound travels the more it changes, dark sounds will disappear. The reverberation becomes rhythmical. The echo allows you to experience the limiting effect of space: differing times between echoes give different impressions of space. It is also possible to communicate with each other by speaking into the acoustic cones. Different sound nuances are created depending on where you call into the cone.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

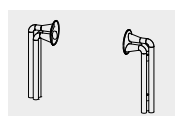
- Independent play



Order No. 10.55100 Echo Game with Order No. 10.22500 Rotating Disc, Photo © Daniel Perales




Echo Game

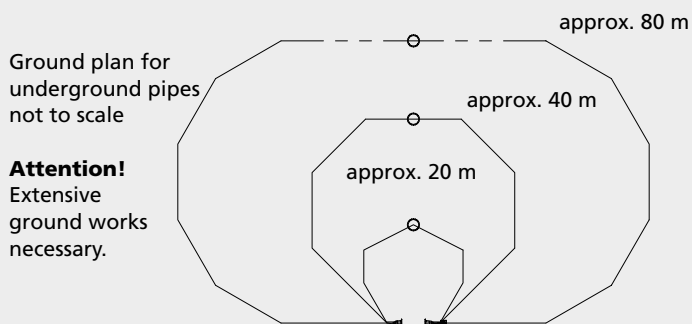
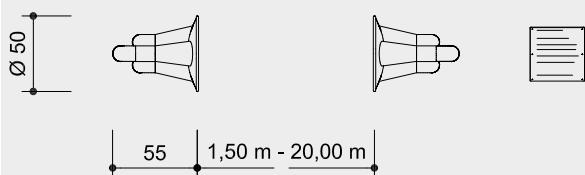
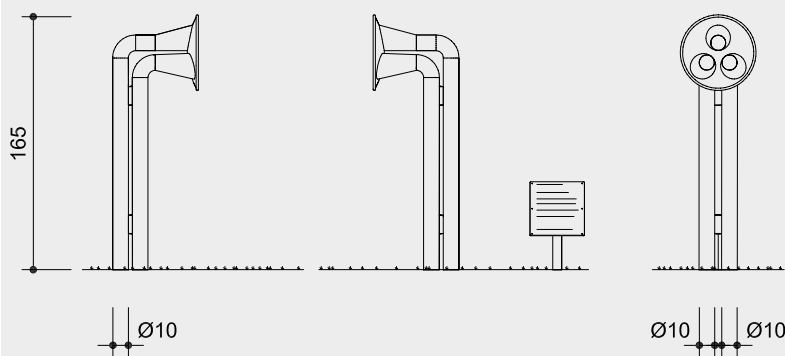
Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	not possible



10.55100

Order No. 10.55100
Echo Game

Safety distance 
Device dimensions 
Functional distance 



Attention!
Extensive ground works necessary.

Scale 1:50

Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Cone shaped openings with incorporated sound reflector and perforated sheet cover

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.65 m
Tube diameter	0.10 m
Speech and listening tube	0.50 m
Depth	0.55 m
Weight	110 kg

Components

- 2 Echo pillars incl. 14 heavy duty anchors with flange for dowelling and couplings
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

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On-site work

supply and installation of the required underground pipes according to our specifications

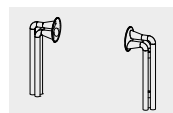
Installation information

Recommended space
Circle diameter 2.00 m per pillar

Foundations
2 items 80 x 80 x 70 cm
Excavation depth 90 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
Technical changes reserved.



10.55100



Order No. 10.57200 Listening to Water as Pillar

Play value

We recommend installing a play station at the start of educational water trails, fields of experience, and also in entrances to playgrounds, where they serve the purpose of preparing the arriving participant for the following sensory and perceptual experiences. The play station „Listening to Water“ is suitable for this purpose. With this installation visitors are introduced to the natural sounds coming from a watercourse: dripping, murmuring, gurgling.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play



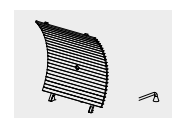
Order No. 10.57100 Listening to Water



Order No. 10.57100 Listening to Water

Listening to Water
Listening to Water as Pillar

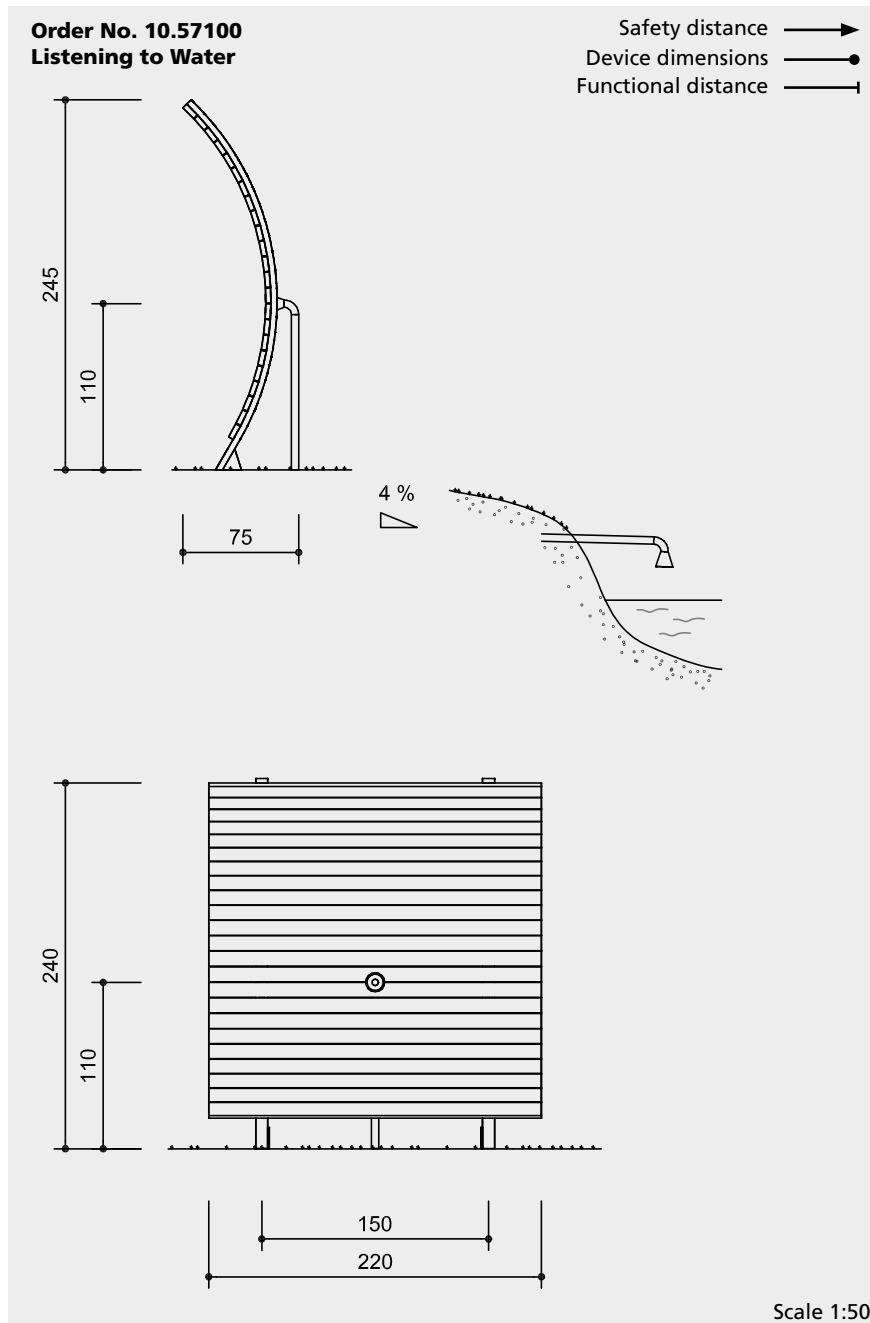
Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	recommended
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	not possible



10.57100



10.57200



Technical information

Planking made of non-impregnated mountain larch

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

All pipe and cone elements as well as pillar made of stainless steel

Hot-dip galvanised frame

Dimensions

(small deviations possible)

Order No. 10.57100 / 10.57200

Height	2.45 m
Listening height	1.10 m
Width	2.20 m
Depth	0.75 m
Weight	260 / 80 kg

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.

Components

Order No. 10.57100

- 1 Reflecting wall with listening cone
- 1 Sound receiving cone for dowelling with fastening material and 8 heavy duty anchors

Order No. 10.57200

- 1 Listening pillar
- 1 Sound receiving cone for dowelling with fastening material and 4 heavy duty anchors

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Explanation board on request

On-site work

Supply and installation of the required pipe work according to our specifications

Installation information

Recommended space
Depending on the installation situation

Foundations

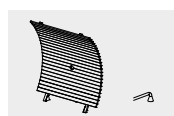
Order No. 10.57100

Listening to Water
1 item 200 x 100 x 30 cm
Excavation depth 50 cm

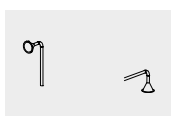
Order No. 10.57200

Listening to Water as Pillar
1 item 60 x 60 x 70 cm
Excavation depth 90 cm

Check the support of the Ear Trumpet on site. Depending on the slope, install additional support if necessary.



10.57100



10.57200

Play value

Every culture has its melodies which stay alive by frequent repetition. The melodic fence gives you this opportunity to play these melodies as a chorus or as a canon or even backwards if you want to. The fence has been tuned with little familiar melodies such as „Frère Jacques“. Other melodies within an octave tone range are possible.



© Richter Spielgeräte GmbH 11/22

The melodic fence consists of handrail, frame and sound tubes. Running a hammer or a stick over the metal rods of the melodic fence creates the tune of a song. In non-public areas the suspension can be done with cables instead of a screw. The length of the fence can be varied depending on the melody or the required space.

Recommended for

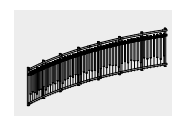
- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

Barrier-free

- Independent play

Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible

**Melodic Fence „Hänschen Klein“
Melodic Fence „Frère Jacques“**

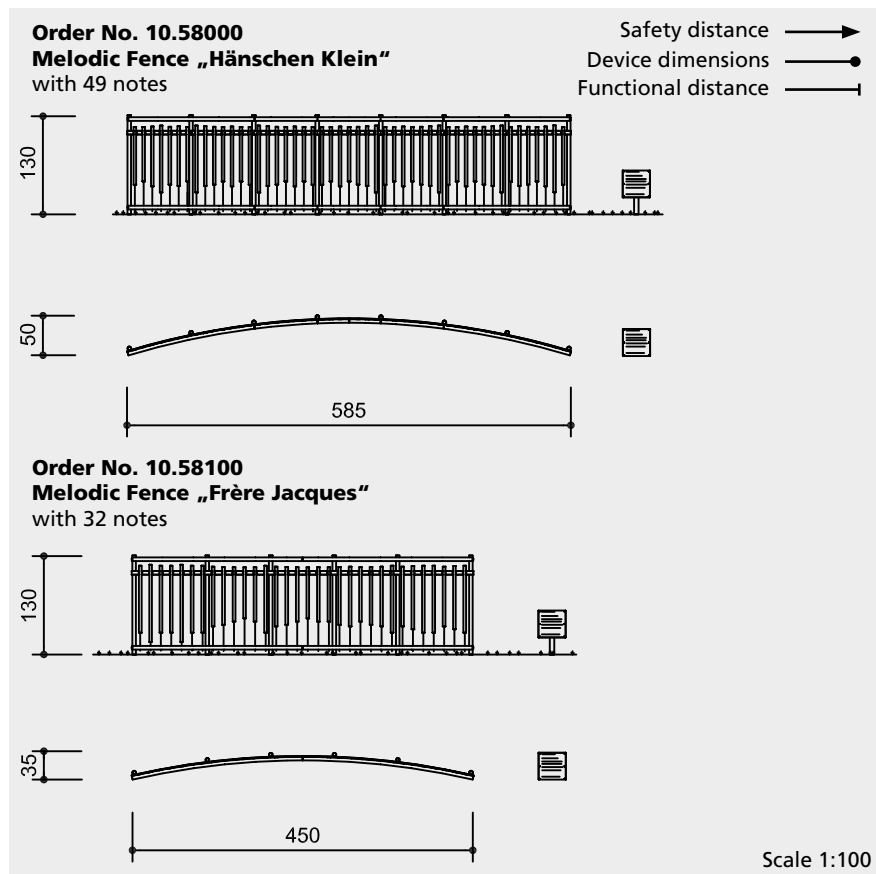


10.58000



10.58100

Design W. Graubner



Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Order No. 10.58000

Melodic Fence „Hänschen Klein“

Height	1.30 m
Length	5.85 m
Weight	170 kg

Order No. 10.58100

Melodic Fence „Frère Jacques“

Height	1.30 m
Length	4.50 m
Weight	118 kg

Components

- 1 Complete piece of equipment with base plates for dowelling, with fastening material and 16 heavy duty anchors
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

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Installation information

Recommended space
 4.80 or 6.00 x 2.00 m

Foundations

Order No. 10.58000
 2 items 280 x 40 x 50 cm
 Excavation depth 60 cm

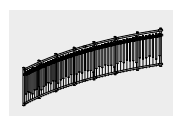
Order No. 10.58100
 2 items 220 x 40 x 50 cm
 Excavation depth 60 cm

Explanation Board
 1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.



10.58000



10.58100



Experience of odour

living with smell

playing with smell

experiencing smell

Sense of smell

The sense of smell is the most primal of all the senses.

The organ with which people achieve the most human accomplishment in the most literal sense is the thinking brain, which emerged from the smelling brain during the course of human development and is the source of all thought.

The reception organ of the sense of smell is located at the roof of the nasal cavity and is known as the olfactory mucous membrane. Smell nerves connect it to the relevant area of the brain. The performance thereof exceeds that of any known chemical method. Aromatic substances are detected over large distances, whereby one ten millionth of a gram is sufficient.

Nowadays we can say with a reasonable amount of certainty that there are seven primary smells (similar to the primary colours of colour vision) from which all smells are created by mixing.

When you hold your breath you smell just as little as if you take full breaths. It is better to smell by "sniffing", i.e. taking short breaths. The breathed-in constituents are separated from the majority of things as fragrance molecules, and do not just stimulate the olfactory nerves but enter the bloodstream directly via the breathing process, where they have a noticeable effect on the overall sensitivity of the person in a similar way to hormones.

Smelling is a comparative process and is directly linked to retentiveness. Inactivity dulls the sense of smell and retentiveness at the same time. Smell connects us to everything. Some smells are experienced as expanding and others as confining – like breathing itself.

The fragrance organ can be filled with the seven basic materials to practice smelling. However, mixed fragrances can also be provided, such as forest soil, sea air etc – which can be used to play a fun memory game and generate thought-provoking impulses to memories that are all but forgotten.

*Es ist der Organismus als
Ganzes der die Organe zu-
sammenhält. Solange ich den
"roten Faden" statt in mir selbst,
überebens suche leblich nur brüch.
stückhaft mit mir selbst....*



Photo © Valentin Luthiger

Play value

Little protected flasks are placed in stainless steel stations and these can be filled with a multitude of fragrances. They should be renewed every three months or, alternatively, the fragrances can be swapped at this time. This is especially recommended for residences for senior citizen: it can give rise to guessing games and conversations.

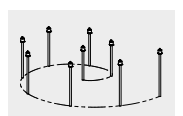
Recommended for

- Kindergarten children
- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar

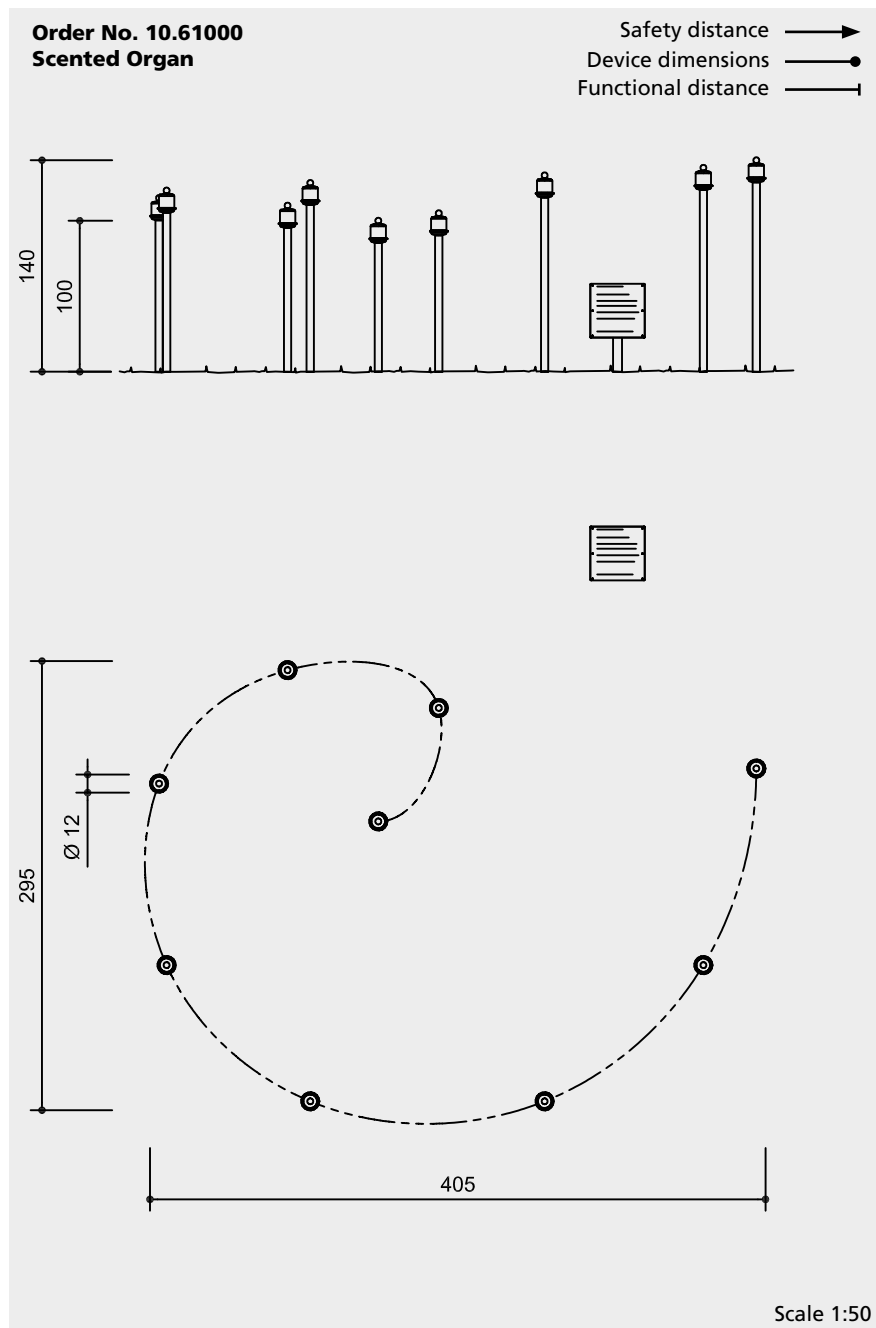


Scented Organ

Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	not necessary
Installation in concrete	possible



10.61000



Technical information

Equipment made of stainless steel with openings for smelling

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Unscrewable secured lid

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.00 -1.40 m
Diameter	max. 0.12 m
Weight	60 kg

Components

- 9 Pillars with aromatic oils sufficient for a two year supply
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

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Installation information

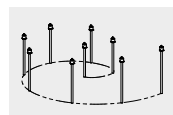
Recommended space
5.00 x 4.00 m

Foundations
9 items 50 x 50 x 40 cm
Excavation depth 60 cm

Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
Technical changes reserved.

The depicted arrangement of the pillars is just a proposal.
It is possible to order a different number of pillars. Minimum order number: 3



10.61000



Experience of space

living with space

playing with space

experiencing space

Experience of space

Our experience of space is very closely connected to the space in which we move. When moving around in space, invisible forces appear: if you stand upright then this movement is pushing against gravity. Any physical activity produces radial forces of two opposing forms. Centripetal forces pull inwards and centrifugal forces are directed outwards. For example an ice skater experiences both forces intensely when pirouetting.

The movements of the human being are related to the earth in the same way as the rotations of the earth are related to the solar system. Simple physical activities like walking and standing give us the opportunity of experiencing our incorporation into the cosmic structures.

If this cosmic horizon is not taken into account during building activity, then this results in a feeling of constriction and claustrophobia; the vital functions of life become paralysed. We believe that only by taking into account this cosmic horizon can architecture truly fulfil its function as we understand it.

Playing with gravity by straightening up can be experienced by using the Balancing Board or the Balancing Disc.

Spinning in the Pirouette allows an insight into your own individual room for movement and how it can be experienced as a space full of invisible forces.

The Partner Swing and Pyramid Partner Swing allow you to experience the principle of the pendulum and your own being as a "physical body".

Gravity and mass become tangible on the Stone Pendulum with its unusually slow swing, and a feeling for inertia can be gained by turning the tons of weight of the Turning Stone.

*Es ist der Organismus als
Ganzes der die Organe zu-
sammenhält. Solange ich den
"roten Faden" statt in mir selbst
woanders suche, lebe ich nur Bruch-
stückhaft mit mir selbst....*

Play value

During development of the embryo, the ear helps to regulate and balance the bodily functions between the mother and the unborn child. After birth the ear carries on its regulating function as a balancing organ. Due to lack of exercise and movement this ability can become retarded in many people. This can be experienced by standing on the Balancing Board and closing the eyes. You have to „hold on“ with your eyes. Maintaining balance on the Balancing Boards therefore is a game which promotes the activity of the individual organ at the same time as it revitalises for the whole body. It promotes balance for the individual as well as in relationship with others and the environment. The connection between the functions of hearing and balancing becomes clear if participants try to balance in an extremely sound-proofed chamber. It can only be done with difficulty. The Balancing Boards can also be used for therapeutic purposes where the Balancing Discs provide the experience of balance and loss of balance.



Order No. 10.71200 Small Balancing Disc



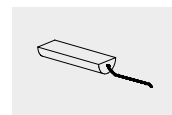
Order No. 10.71100 / 10.71200 Small Balancing Discs

**Small Balancing Board
Small Balancing Discs**

Recommended for

- Kindergarten children
- School children
- Young people
- Supervised play areas, such as kindergartens, schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar




Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	standard compliant
Installation in concrete	possible

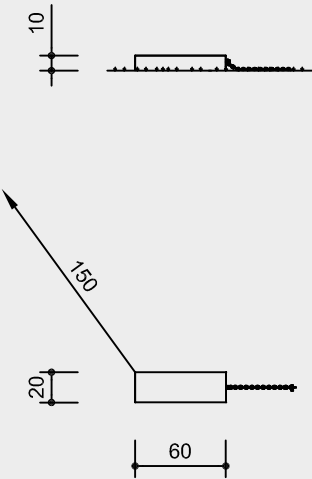


10.71000

10.71100 / 10.71200

Order No. 10.71000
Small Balancing Board

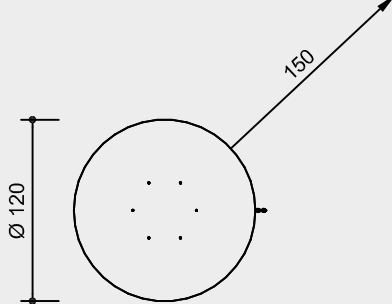
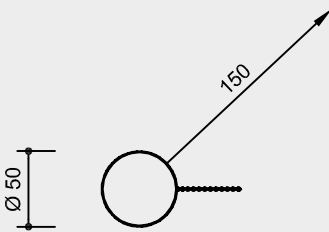
Safety distance 
Device dimensions 
Functional distance 



Order No. 10.71100
Small Balancing Disc
for 1 Person



Order No. 10.71200
Small Balancing Disc
for 2 - 3 Persons



Scale 1:50

Technical information

Balancing block made of solid ash wood with anti-slip tread

Core-free

Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Balancing disc made of waterproof bonded plywood with anti-slip tread and solid waterproof bonded ash wood

Secured against theft by ground fastening with rotating joint made of stainless steel, ground anchor and galvanised, close-link chain

Dimensions

(small deviations possible)

Order No. 10.71000
Small Balancing Board

Length	0.60 m
Width	0.20 m
Height	0.10 m
Weight	10 kg

Order No. 10.71100
Small Balancing Disc

Diameter	0.50 m
Height	0.14 m
Weight	15 kg

Order No. 10.71200
Small Balancing Disc

Diameter	1.20 m
Height	0.18 m
Weight	25 kg

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.
Technical changes reserved.

Components

Order No. 10.71000

1 Small Balancing Board including chain and fastening material

Order No. 10.71100

1 Small Balancing Disc for 1 person including chain and fastening material

Order No. 10.71200

1 Small Balancing Disc for 2 - 3 persons including chain and fastening material

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Explanation board on request

Installation information

Surfacing requirements corresponding to a fall height of ≤ 0.60 m (please refer to price list for more detailed information)

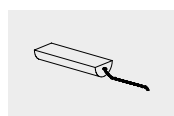
Recommended space with safety distance

Order No. 10.71000
with chain \varnothing 5.60 m
without chain \varnothing 3.60 m

Order No. 10.71100
with chain \varnothing 5.30 m
without chain \varnothing 3.50 m

Order No. 10.71200
with chain \varnothing 6.20 m
without chain \varnothing 4.20 m

Foundations
1 item 30 x 30 x 20 cm
Excavation depth 50 cm



10.71000



10.71100 / 10.71200



Photo © Daniel Perales

Play value

The Large Balancing Disc encourages groups of people to play a balancing game together. Each individual can experience how small circling, spiral, relocating movements can achieve the aim of balancing. The Balancing Disc is available in two sizes. On the larger, 3.4 m Balancing Disc, up to 25 people can try to attain combined balance. The participants can achieve equilibrium by co-operation, mutual observation, and more and more responsive movements. After the wild rush for movement at the beginning, the group begins to try out more sensitive movements which transform the activity into a peaceful game.

Recommended for

- School children
- Young people
- Supervised play areas, such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar
- Swimming pools without supervision, such as outdoor pools, adventure pools or similar



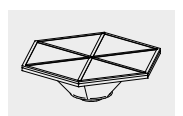
Photo © Daniel Perales

Large Balancing Disc

Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	not possible



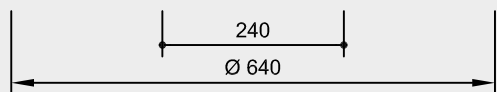
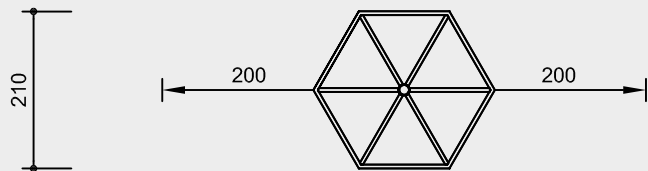
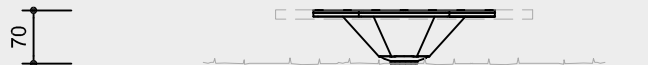
Photo © Daniel Perales



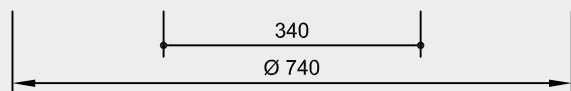
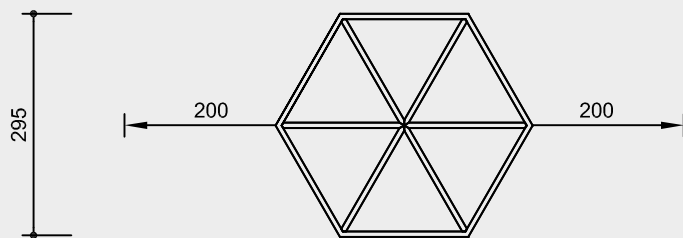
10.73200 / 10.73300

Order No. 10.73200
Large Balancing Disc
 Diameter 2.40 m

Safety distance 
 Device dimensions 
 Functional distance 



Order No. 10.73300
Large Balancing Disc
 Diameter 3.40 m



Scale 1:100

Technical information

Equipment made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Mounted on revolving and pendulum bearing

Walking surface made of multiple laminated weather resistant non-slip phenolic plywood with rounded edge profile

Pendulum bearing with limitation of movement and self-lubricating bearings

Covering and edge profile as well as bearings made of stainless steel

Mechanism completely enclosed to prevent danger of entrapment

Dimensions

(small deviations possible)

Order No. 10.73200
Large Balancing Disc

Height	0.70 m
Diameter	2.40 m
Weight	400 kg

Order No. 10.73300
Large Balancing Disc

Height	0.70 m
Diameter	3.40 m
Weight	600 kg

Components

1 Complete piece of equipment with foundation anchor

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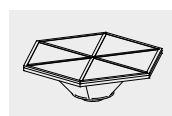
Explanation board on request

Installation information

Surfacing requirements corresponding to a fall height of ≤ 1.00 m (please refer to price list for more detailed information)

Foundations
 1 item 130 x 130 x 70 cm reinforced
 Blinding layer
 1 item 130 x 130 x 5 cm
 Total excavation depth 95 cm

Attention:
Exact measurements may vary; for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.



10.73200 / 10.73300

Play value

The turning motion allows you to experience the space you move in as a space full of invisible forces acting on your body. Our bodies are subject to the laws of gravity and with their help we can stand upright on the vertical axis. This provides us with an insight into the significance of an upright posture. If you slouch you are only able to rotate very slowly around your own axis. Also the ability to avoid vertigo can be learnt on this rotating disc. Either you fix your gaze on a certain point in the surrounding landscape and quickly catch a glimpse of it at every turn, or you concentrate entirely on your environment and become as one with it thereby keeping your orientation directed outwards.

Recommended for

- Kindergarten children
- School children
- Young people
- Supervised play areas, such as kindergartens, schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar
- Swimming pools without supervision, such as outdoor pools, adventure pools or similar



Pirouette

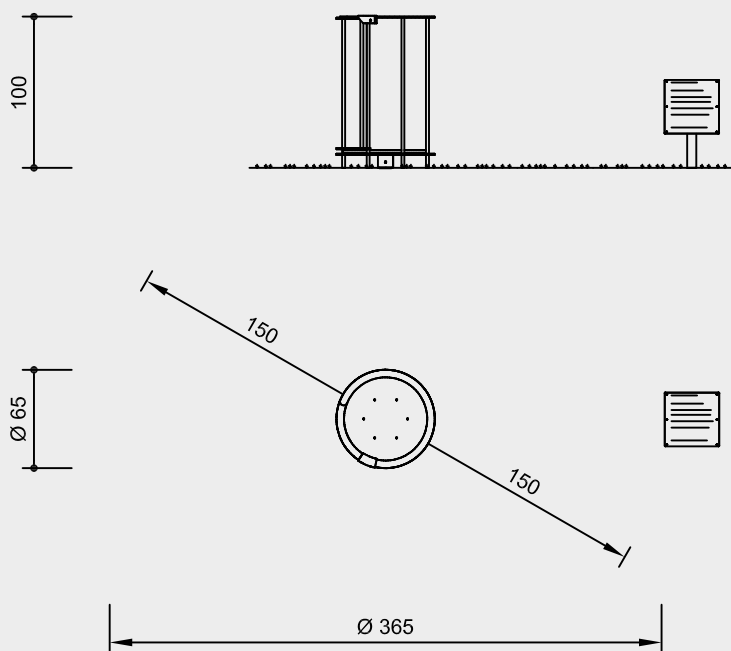
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	included
Installation	indoors and outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible



10.91000

Order No. 10.91000
Pirouette

Safety distance →
 Device dimensions —●—
 Functional distance —|—



Scale 1:100

Safety check according to DIN EN 1176

Components

- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

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Installation information

Surfacing requirements corresponding to a fall height of ≤ 0.60 m (please refer to price list for more detailed information)

Foundations

1 item 80 x 80 x 40 cm
 Excavation depth 60 cm

Explanation Board

1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.

Technical information

Ground plate made of steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Roller bearings

High-quality roller bearings made of chrome steel or stainless steel for rotating elements, easy to maintain and exchange, sealed



For more detailed explanation of the quality characteristics see price list.

Non-slip foot plate

Rotating plate on maintenance free, free-moving and dirt-protected double ball bearing

Fall protection through railing and door made of stainless steel

Entry door with safe locking mechanism

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

Height	1.00 m
Diameter	0.65 m
Turning disc diameter	0.55 m
Weight	90 kg



10.91000



Photo © Daniel Perales

Play value

Our sense of space and time is characterised by our own body mass and its speed of movement. Setting into motion the significantly larger mass of the Turning Stone requires either much more time or strength than is required to move ourselves. Two possibilities exist of bringing the large mass of the Turning Stone into motion: first, it can be achieved by means of extreme effort over a short period of time. The second possibility however is amazing: merely by exercising a slight force it is possible to set the massive stone block into a rotating movement which becomes faster and faster, provided that the stone continues to be pushed long enough. This can even be achieved merely by using your little finger.

Recommended for

- School children
- Young people
- Adults
- Older people
- Public play areas without supervision, such as playgrounds, parks or similar






Turning Stone

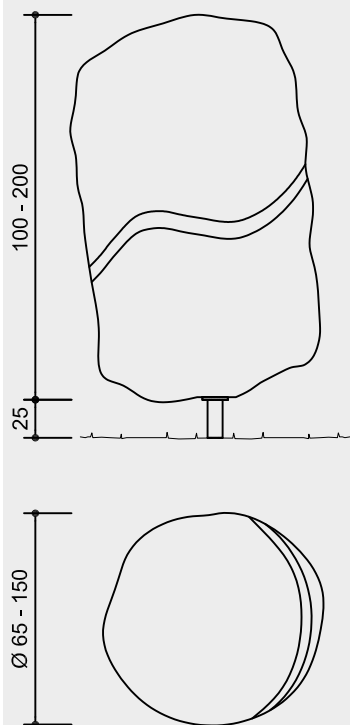
Vandalism	not vulnerable
Supervision	not necessary
Explanation Board	not necessary
Installation	indoors and outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	possible



10.91520 - 10.91540

Order No. 10.91520 - 10.91540
Turning Stone

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Safety check according to DIN EN 1176

Components

- 1 Turning Stone with foot
- 1 Foundation frame

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Recommended space
 circle diameter 4.00 m
 (please refer to price list for more
 detailed information)

Foundations
 1 item 130 x 130 x 70 cm
 reinforced
 Blinding layer
 1 item 130 x 130 x 5 cm
 Total excavation depth 95 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current assembly instructions.
 Technical changes reserved.

Technical information

Boulder made of nordic granites or
 gneiss, natural play of colours

Ground anchor

All parts used for anchoring to the
 ground are made of hot-dip galvanised
 steel or stainless steel



Roller bearings

High-quality roller bearings made
 of chrome steel or stainless steel for
 rotating elements, easy to maintain and
 exchange, sealed



**For more detailed explanation of the
 quality characteristics see price list.**

Recessed diagonal groove

Special bearings with lubricating nipple,
 set into the stone so that the stone will
 not tilt if the bearing breaks

Foot with ground plate,
 corrosion-resistant

Order No. 10.91520

Turning Stone small

Order No. 10.91520

Turning Stone medium

Best.-Nr. 10.91540

Turning Stone large

Dimensions

(small deviations possible)

Stone height	1.00 - 2.00 m
Diameter	0.65 - 1.50 m
Weight depends on size from	1.5 to max. 4.0 t

(The exact weight for providing the re-
 quired assembly equipment is announced
 before delivery)



10.91520 - 10.91540



Play value

Here both young and old can just have fun by cooperating together in this interactive game. Various invisibly acting forces reach a harmonious equilibrium in the swinging movement. You are transported into a state of physical well-being. The fact that two swings are connected together intensifies the swinging experience by the act of harmony and the extra length of the swing chains. The rhythmic energy of one swing is transferred to the other resting swing. This is then reversed for the other swing. The long-lasting swinging momentum is transferred from one swing to the other in alternating rhythm. The partner being swung is able to experience in an unusual way how their movement is then transferred to the other partner.

Recommended for

- School children
- Young people
- Supervised play areas, such as schools, after-school programmes or similar
- Swimming pools without supervision, such as outdoor pools, adventure pools or similar

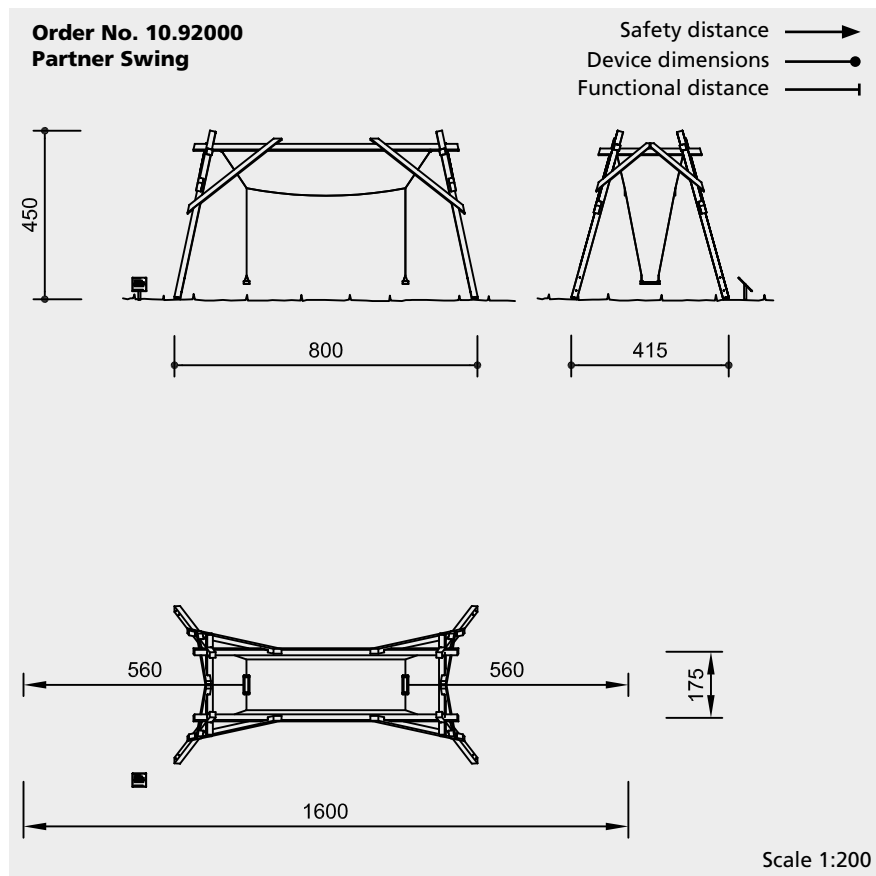


Partner Swing

Vandalism	not vulnerable
Supervision	recommended
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	not possible



10.92000



Safety check according to DIN EN 1176

Components

- 1 Complete swing frame of square timber with steel feet and swing suspension
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
40-0682207 South Korea

Installation information

Surfacing requirements corresponding to a fall height of ≤ 3.00 m (please refer to price list for more detailed information)

Foundations
4 items 60 x 60 x 60 cm
Excavation depth 80 cm
Explanation Board
1 item 40 x 40 x 40 cm
Excavation depth 60 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.

Technical information

Equipment made of non-impregnated mountain larch

Core-free
Sawn-timbers core-free, thus decreasing occurrences of cracking and undesired changes in shape



Laminated wood beams
Laminated wood beams made of non-impregnated larch, glued according to EN 14080:2013; for very large timber cross-sections; comparatively low shrinkage, almost completely free of cracks



Swing seat
Ergonomically shaped swing seat made of rubber with soft shock absorbing edge. Durable due to strong profiled steel insert



Double rope connection
Connection for complicated swing and swivel motion



Profiled washer
Profiled washer for covering protruding screw heads according to standard, improved pressure distribution and protection against water. Impedes loosening the bolt



Adjustable
Adjustable two-piece bolt connection, easy to maintain, no projecting threads



Ground anchor
All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Chains
Chains made of hot-dip galvanized steel (1.4301 / 1.4571 at extra charge) welded before galvanising, short-linked, without eyelets on the connecting parts, easy to exchange and shorten



For more detailed explanation of the quality characteristics see price list.

Joints and suspension hot-dip galvanised

Connecting ropes made of PP rope, \varnothing 16 mm, 3 strands, weather-resistant, standard colour: hemp

Support for Explanation Board made of stainless steel

Dimensions
(small deviations possible)

Height	4.50 m
Length	8.00 m
Width	4.15 m
Weight	900 kg



10.92000



Play value

The whole body is used here. Physical well-being is soon experienced. At the beginning it is not easy to understand what happens when two people swing on the partner swing. Enjoyment comes with the discovery that when one person swings, the other, without having to do anything, also swings. However it can also happen that in spite of great effort someone does not start to swing. And that only makes the enjoyment even greater when on the connected system of coupled swinging, the swing momentum returns powerfully.

Recommended for

- School children
- Young people
- Supervised play areas, such as schools, after-school programmes or similar



Pyramid Partner Swing

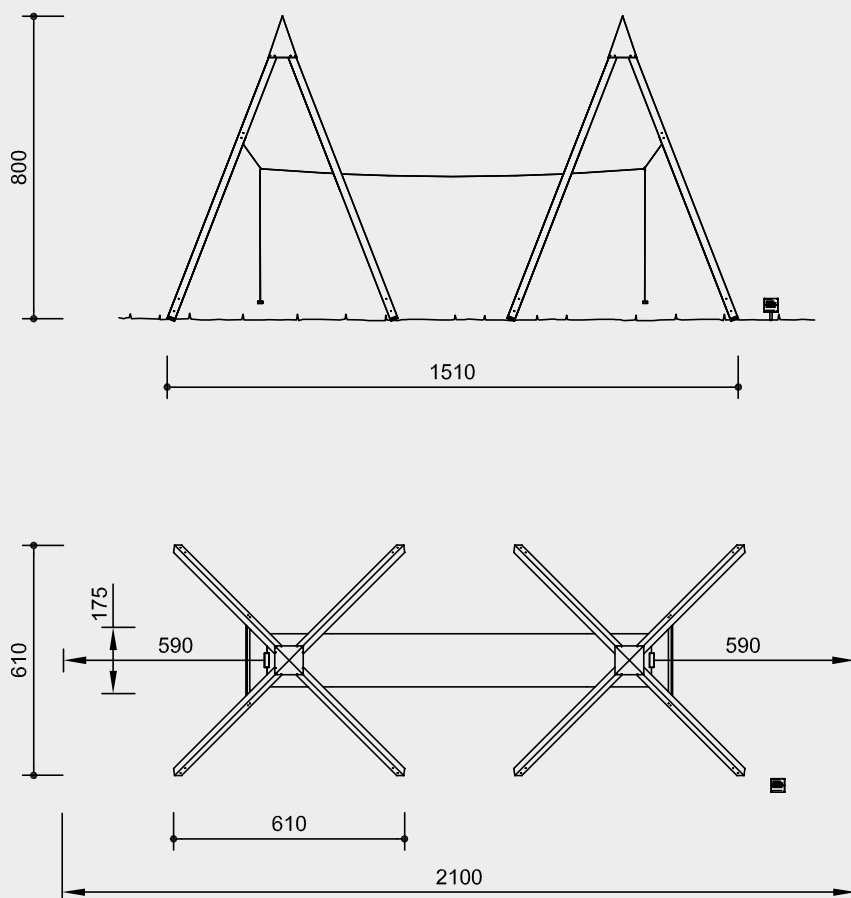
Vandalism	not vulnerable
Supervision	recommended
Explanation Board	included
Installation	outdoors
Safety check (DIN EN 1176)	has been completed
Installation in concrete	not possible



10.93000

Order No. 10.93000
Pyramid Partner Swing

Safety distance ———→
 Device dimensions ———●
 Functional distance ———|



Scale 1:200

Safety check according to DIN EN 1176

Components

- 1 Complete swing frame with swing suspension and steel feet
- 1 Explanation Board with support for dowelling and 4 heavy duty anchors

Trademark

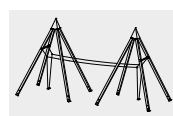
30 2005 500 000 Germany
 40-0682207 South Korea

Installation information

Surfacing requirements corresponding to a fall height of ≤ 3.00 m (please refer to price list for more detailed information)

Foundations
 8 items 80 x 80 x 60 cm
 Excavation depth 80 cm
Explanation Board
 1 item 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
 Technical changes reserved.



10.93000

Technical information

Beams made of laminated mountain larch, glued according to EN 14080:2013

Laminated wood beams

Laminated wood beams made of non-impregnated larch, glued according to EN 14080:2013; for very large timber cross-sections; comparatively low shrinkage, almost completely free of cracks



Swing seat

Ergonomically shaped swing seat made of rubber with soft shock absorbing edge. Durable due to strong profiled steel insert



Double rope connection

Connection for complicated swing and swivel motion



Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanized steel or stainless steel



Chains

Chains made of hot-dip galvanized steel (1.4301 / 1.4571 at extra charge) welded before galvanising, short-linked, without eyelets on the connecting parts, easy to exchange and shorten



For more detailed explanation of the quality characteristics see price list.

Joints and suspension hot-dip galvanized

Connecting ropes made of PP rope, Ø 16 mm, 3 strands, weather-resistant, standard colour: hemp

Top of stainless steel

Support for Explanation Board made of stainless steel

Dimensions

(small deviations possible)

For one pyramid	
Height	8.00 m
Length	6.10 m
Length total	15.10 m
Width	6.10 m
Weight total	2.000 kg

Play value

The stone block allows you to experience the effect of mass and gravity, time, rhythm and weightlessness on your own body. You sit on the stone block and swing lightly with your eyes shut. Your own movements appear to be unusually slowed down. A hint of weightlessness can be perceived. Or try to make the stone begin to swing merely with a thread placed around the cable.



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Stone Pendulum

Recommended for

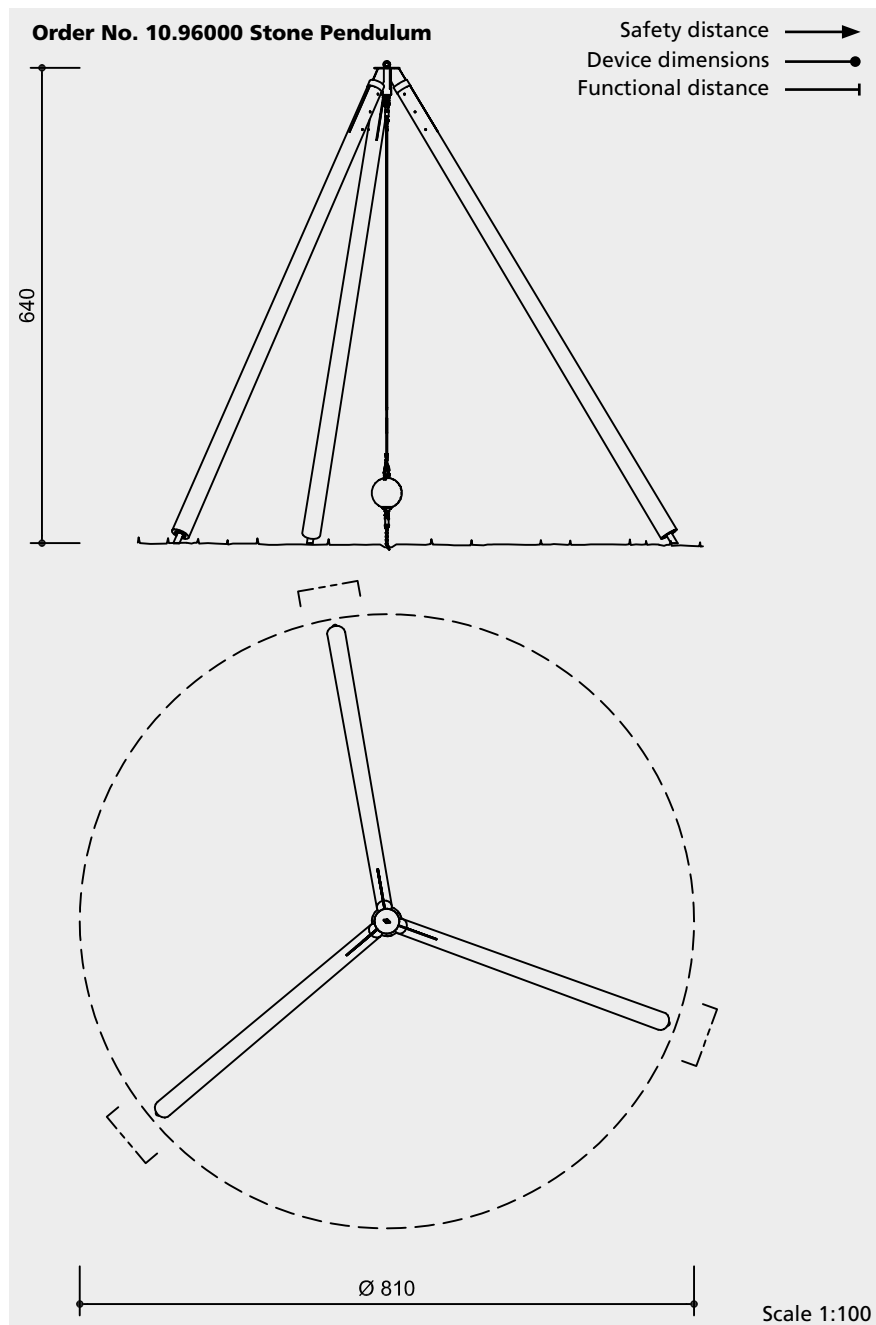
- School children
- Young people
- Adults
- Supervised play areas, such as schools, after-school programmes or similar
- Public play areas without supervision, such as playgrounds, parks or similar

Vandalism	not vulnerable
Supervision	recommended (with deflection limiting chain)
Explanation Board	absolutely necessary (without deflection limiting chain)
Installation	recommended
Safety check (DIN EN 1176)	outdoors
Installation in concrete	has been completed
	not possible



10.96000

Design W. Graubner based on H. Kükelhaus



Technical information

Supports made of mountain larch with galvanised steel feet

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



Chains

Chains made of hot-dip galvanized steel (1.4301 / 1.4571 at extra charge) welded before galvanising, short-linked, without eyelets on the connecting parts, easy to exchange and shorten



For more detailed explanation of the quality characteristics see price list.

Rotating bearing with ball bearings, high-tensile stainless steel cable

Central limited swing range with chain and stainless steel swivel, alternatively short chain with padlock that can be removed by a supervisor

Double secured suspension at pendulum joint and the suspension of the stone

Dimensions

(small deviations possible)

Frame	
Height	6.40 m
Diameter	8.10 m
Weight	900 kg
Stone	
Diameter	0.40 -0.80 m
Weight	150 - 350 kg

Safety check according to DIN EN 1176

Components

- 1 Complete piece of equipment with stone and cable
- 1 Chain with limited swing range
- 1 Short chain with padlock

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Explanation board on request

Installation information

Surfacing requirements corresponding to a fall height of ≤ 1.00 m (please refer to price list for more detailed information)

Foundations
 4 items 80 x 80 x 80 cm reinforced
 Blinding layer
 80 x 80 x 5 cm
 Total excavation depth 105 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.



10.96000

A useful supplement to the play stations.


The Explanation Boards show information on the significance of the equipment which extends beyond the merely play-related enjoyment of the equipment. They contribute to a deeper understanding of the phenomenon.

Please ask us about other Explanation Boards in our range which are not illustrated here.

+
+

The Tuning Stone

Make a stone sing



The pillar consists of a polished block of granite, scored with deep grooves.

These grooves make it possible to make the stone sing by simply rubbing it with your hand. This causes the block to vibrate like a large tuning fork made of stone.

If there is a water source available, it can be used to wet the stone by rubbing it evenly over the surface with your hands. The best effect is achieved with hands that are free of oil.

Rubbing on the stone causes a vibration that creates a sound. A similar phenomenon is known from glasses, which can be made to create a sound by wetting the rim with water and rubbing it with the finger.

The sound of the stone is full and deep and the mass of the stone causes the special effect to continue for a while.

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Design W. Graubner based on H. Kükelhaus

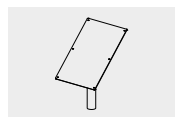
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Example for an explanation Board based on the Tuning Stone

**Explanation Board
Support for Explanation Board**






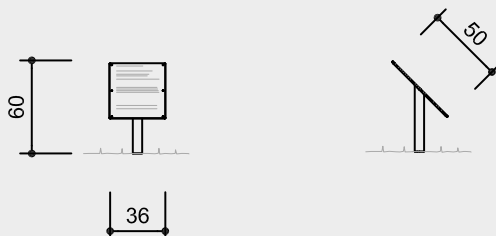
10.97400



10.99100

Order No. 10.97400
Explanation Board
Order No. 10.99100
Support for Explanation Board

Safety distance 
 Device dimensions 
 Functional distance 



Scale 1:50

Safety check according to DIN EN 1176

Components

Order No. 10.97400

1 Explanation Board with text

Order No. 10.99100

1 Support for dowelling and 4 heavy duty anchors

Trademark

30 2005 500 000 Germany
 40-0682207 South Korea

Installation information

Recommended space
 1.00 x 0.75 m

Foundations
 1 piece 40 x 40 x 40 cm
 Excavation depth 60 cm

Attention:

**Exact measurements may vary;
 for all installation dimensions refer
 to current assembly instructions.**

Technical changes reserved.

Technical information

Explanation Board made of stainless steel

Ground anchor

All parts used for anchoring to the ground are made of hot-dip galvanised steel or stainless steel



For more detailed explanation of the quality characteristics see price list.

Screen printed text

Support made of stainless steel

Dimensions

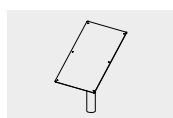
(small deviations possible)

Order No. 10.97400
Explanation Board

Height	0.60 m
Width	0.36 m
Total height with support	0.60 m
Weight	15 kg



10.97400



10.99100

**Do you want to know
more about us?**

- ① The main catalogue comprises our complete range of standard equipment.

A selection of our products is described in the following theme catalogues:

- ② For the very Young
- ③ Movement by Climbing
- ④ Child at Play
- ⑤ Water and Play
- ⑥ Growing Older
- ⑦ Acoustic and Play



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