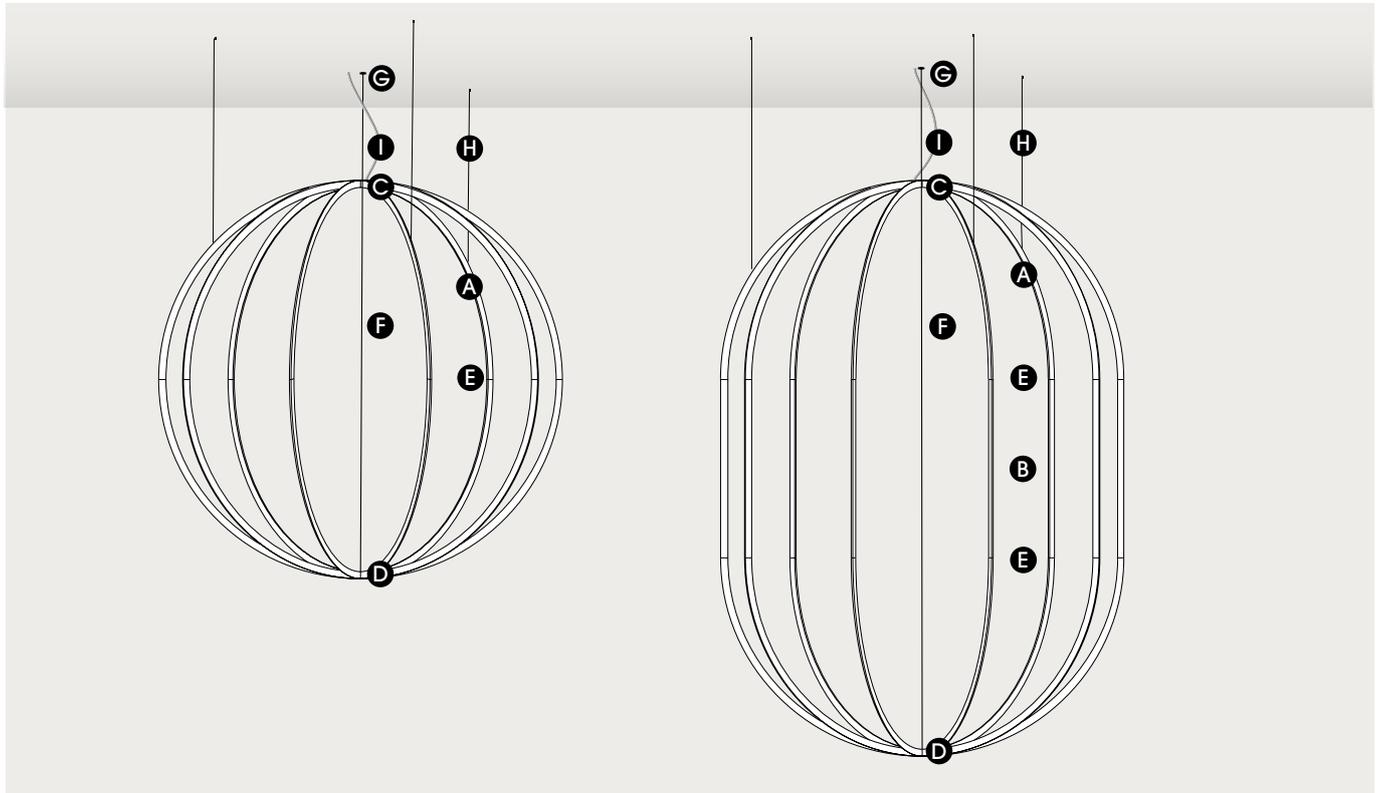


freestyler sphere

Installation

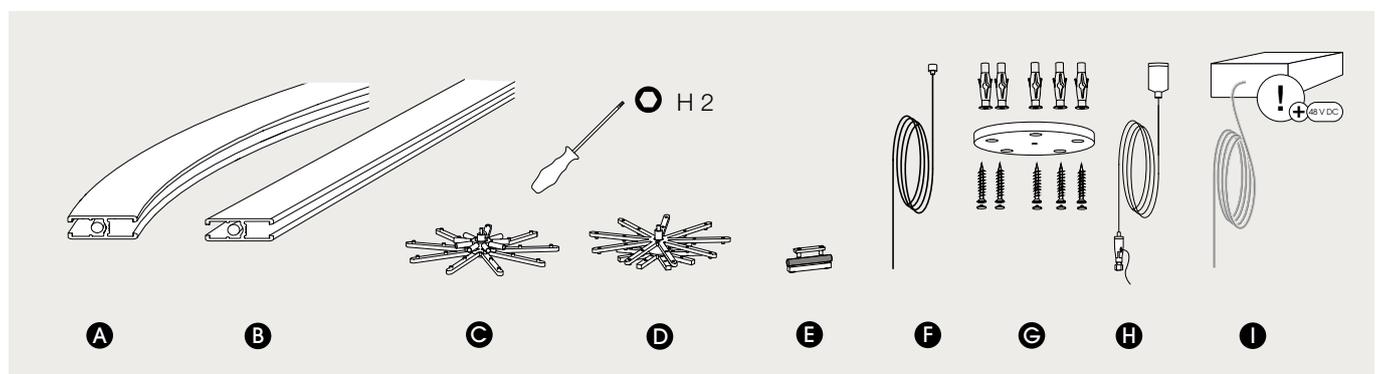
PLEASE READ WITH CARE THE GENERAL INFORMATION BELOW ON THE INSTALLATION OF SENSE SYSTEM. (p. 8-10)!



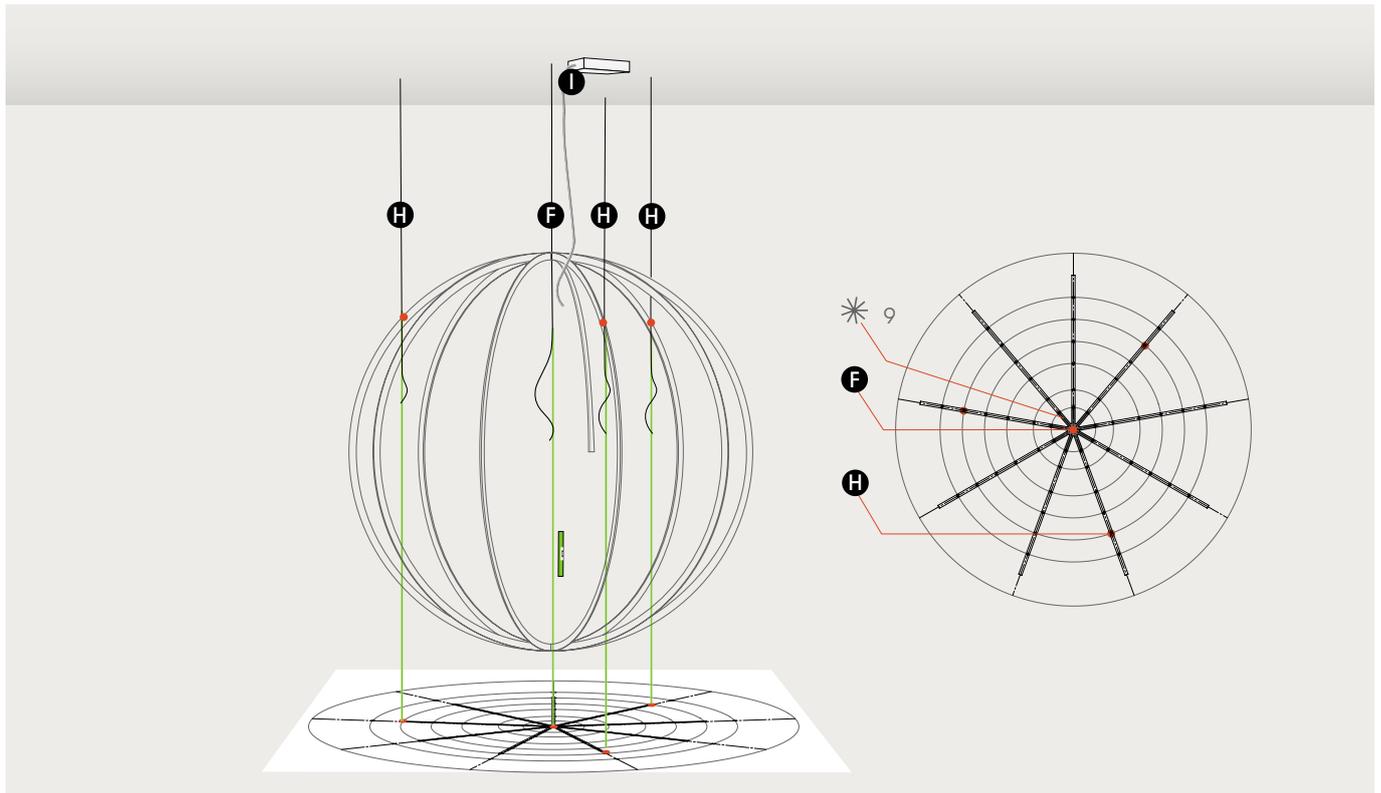
A curved sections of track
 B optional: linear extended sections of track
 C upper star connector, electrical and mechanical
 D lower star connector, mechanical
 E linear connector, electrical and mechanical
 F central suspension cable
 G ceiling panel for mounting of luminaire

H three further cables serving as a rotation lock
 I connecting cable with power supply, control gear

The star connectors indicate the number of track sections to be applied. E.g. to create a Sphere luminaire with eight beams requires a total of 16 curved sections of track, and 8 sections of extended track as an option. With Sphere, the inner conductor runs on the outside, i.e. the lights are latched and aligned on the outside.



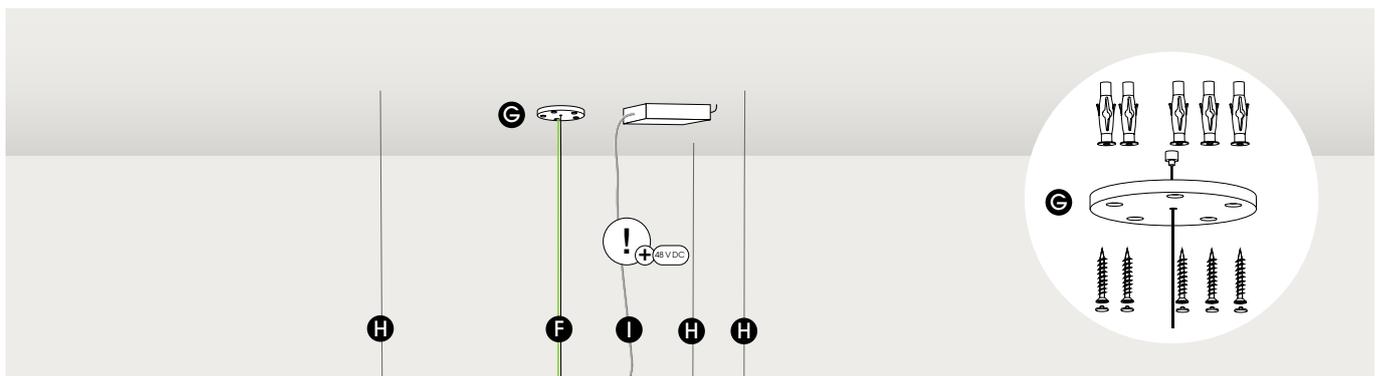
freestyler sphere Installation



We provide a PDF as a mounting aid and drilling template, which can be plotted out 1:1 on site. Select the plot with the desired number of beams from the data provided. Mark the **central point (F)** and the **3 positions for anti-rotation protection (H)** on the plot. Align to a position on the floor and project onto the ceiling using a laser level.

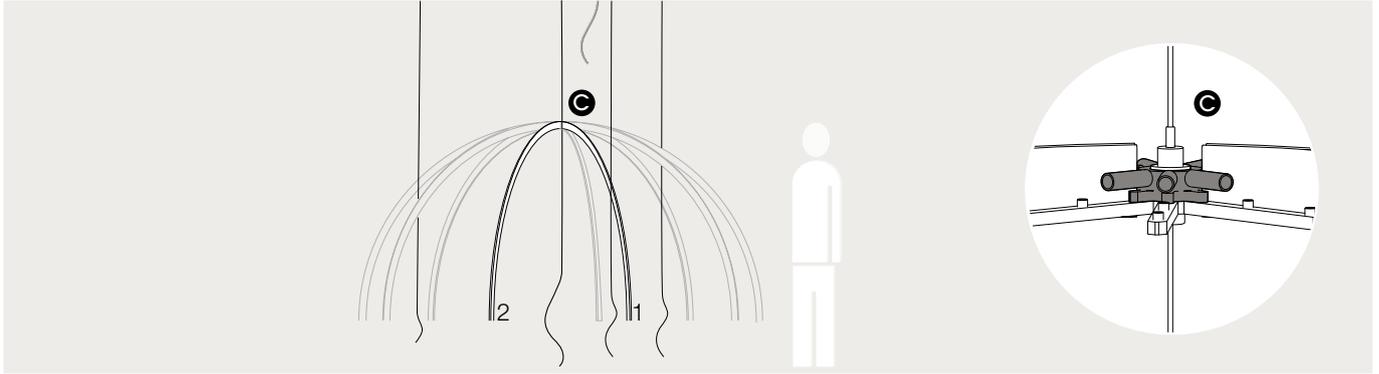
Drilling templates for 5-12 beams / 1:1 plot / A0

https://buschfeld.de/fileadmin/user_upload/buschfeld.de/Downloads_intakt/Buschfeld_Sphere_Bohrschablonen_A0.zip



Begin with the installation of the **central suspension cable (F)**. Thread it through the **ceiling panel (G)** and leave it hanging below. Fasten the ceiling panel to the ceiling via the 5 screws. The screw heads can be covered afterwards using the plastic caps provided. Fasten the **three cables serving as a rotation lock (H)** at the positions marked on the ceiling, and leave them hanging down. Position the **connecting cable with power supply and control gear (I)**. Pay attention to the desired height of the Freestyler and the length of the connecting cable.

freestyler sphere Installation

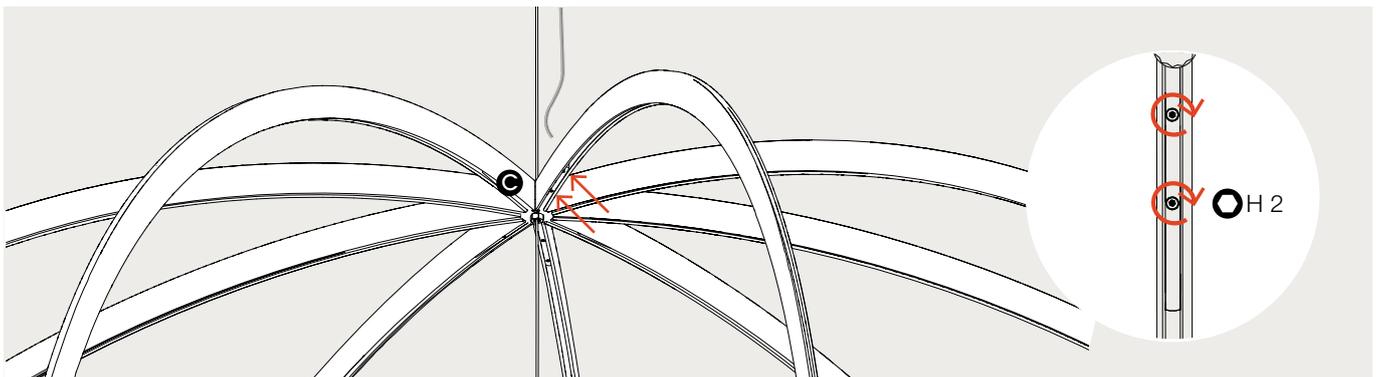


Thread the **upper star connector (C)** onto the central suspension cable and adjust to the desired height.

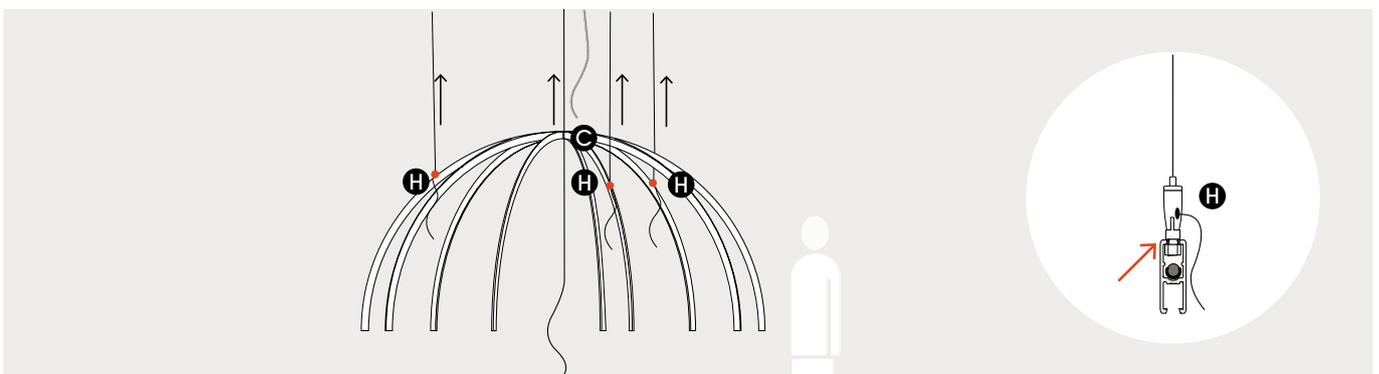
Apply the sections of track for the upper part of the structure - do not screw into place yet!

Tip: always screw the sections of **track aligned opposite each other one after the other**. This maintains the balance of the hemisphere.

NB: make sure **not to damage the wire wrapped connector sockets** during the above installation work.



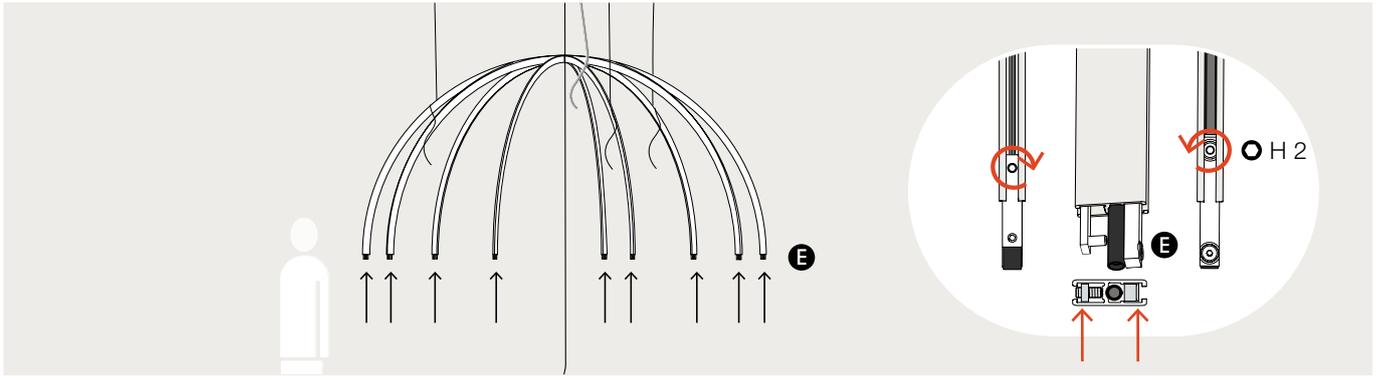
When all the sections of track for the upper hemisphere have been positioned on the connector, the screws can be firmly tightened.



Insert the **rotation lock (H)** into the respective sections of track, push them along to the required position and pull firmly into place. Thread the remaining cable into the track.

Take a balanced hold of the hemisphere (C) and push it upwards along the suspension cable, thus positioning it at its new operating height. Then tighten up the anti-rotation cables.

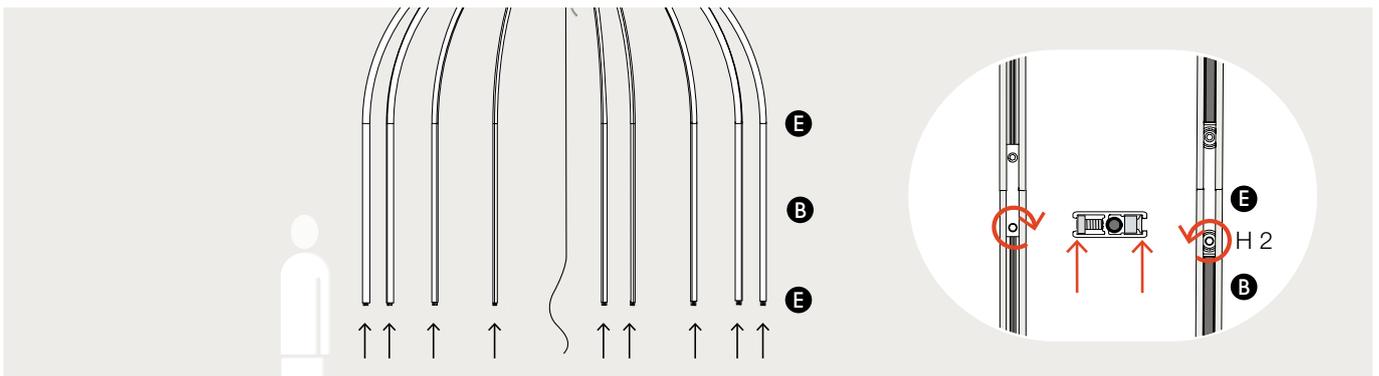
freestyler sphere Installation



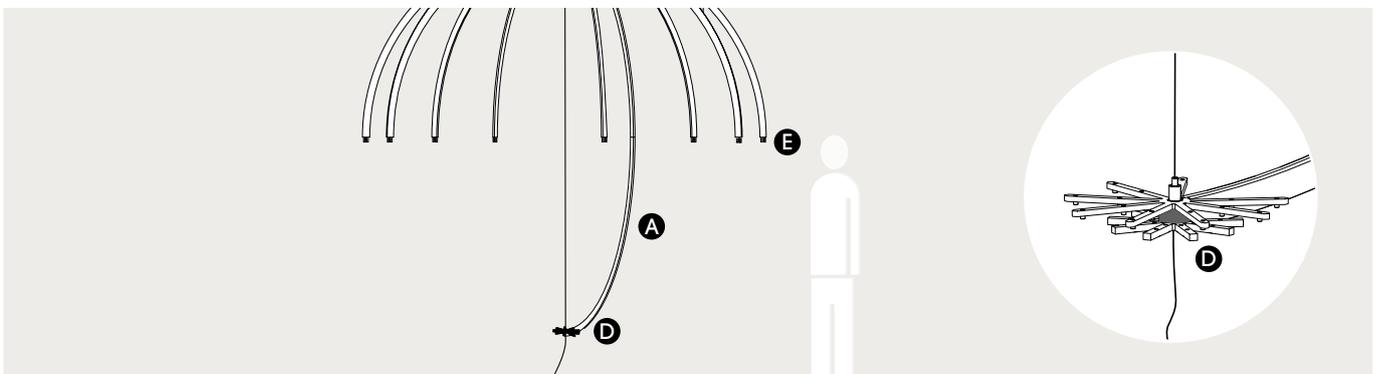
Insert the **linear connectors (E)** and screw firmly into place: the connector element with the screws is designed for the inner channel. To fix into place, the screws in the connector element are screwed in clockwise.

Push the electrical connector onto the inner conductor of the curved track. Insert the mechanical connector into the outer channel of the track and screw into place. The countersunk screws on the connector element are screwed in anticlockwise and press into the profile of the track from the inside.

Make sure the screws are tightened in the right direction!

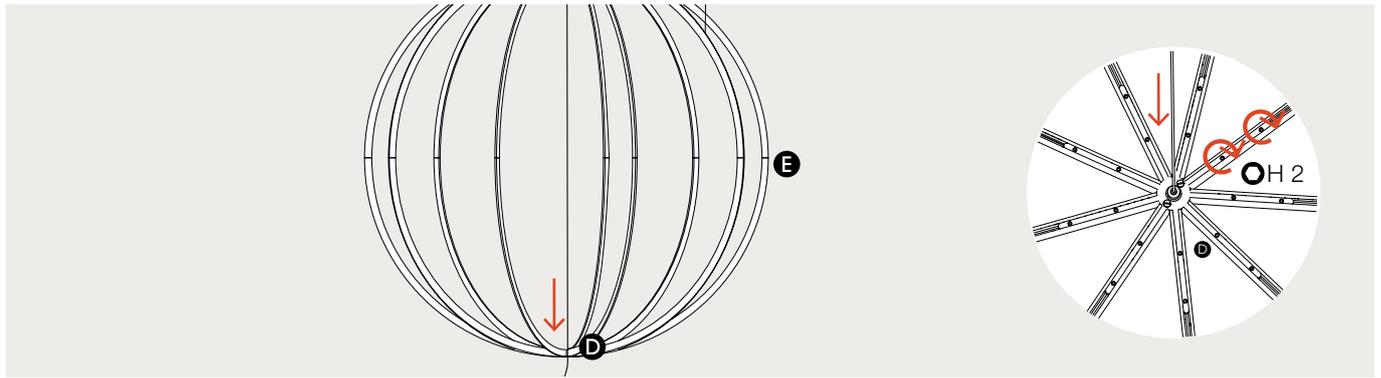


Optional: in the case of oval-shaped structures, this is when the **linear sections of track (B)** are applied. This requires that the track and inner conductors are attached to the linear connectors and screwed into place. Make sure the screws are tightened in the right direction. **Insert the linear connectors (E)** into the lower ends of the sections of track and screw into place, as above.



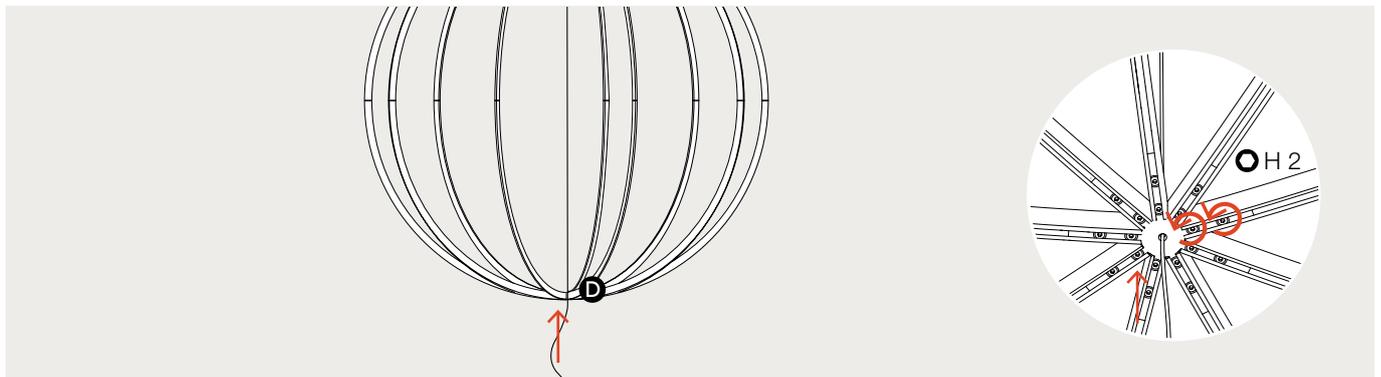
Thread the **lower star connector (D)** onto the suspension cable. Then apply the **curved sections of track (A)** for the lower hemisphere by connecting them to the **star connector (D)**.

freestyler sphere Installation



As soon as all sections of track have been applied, tighten all the screws in the inner and outer channels of the track.

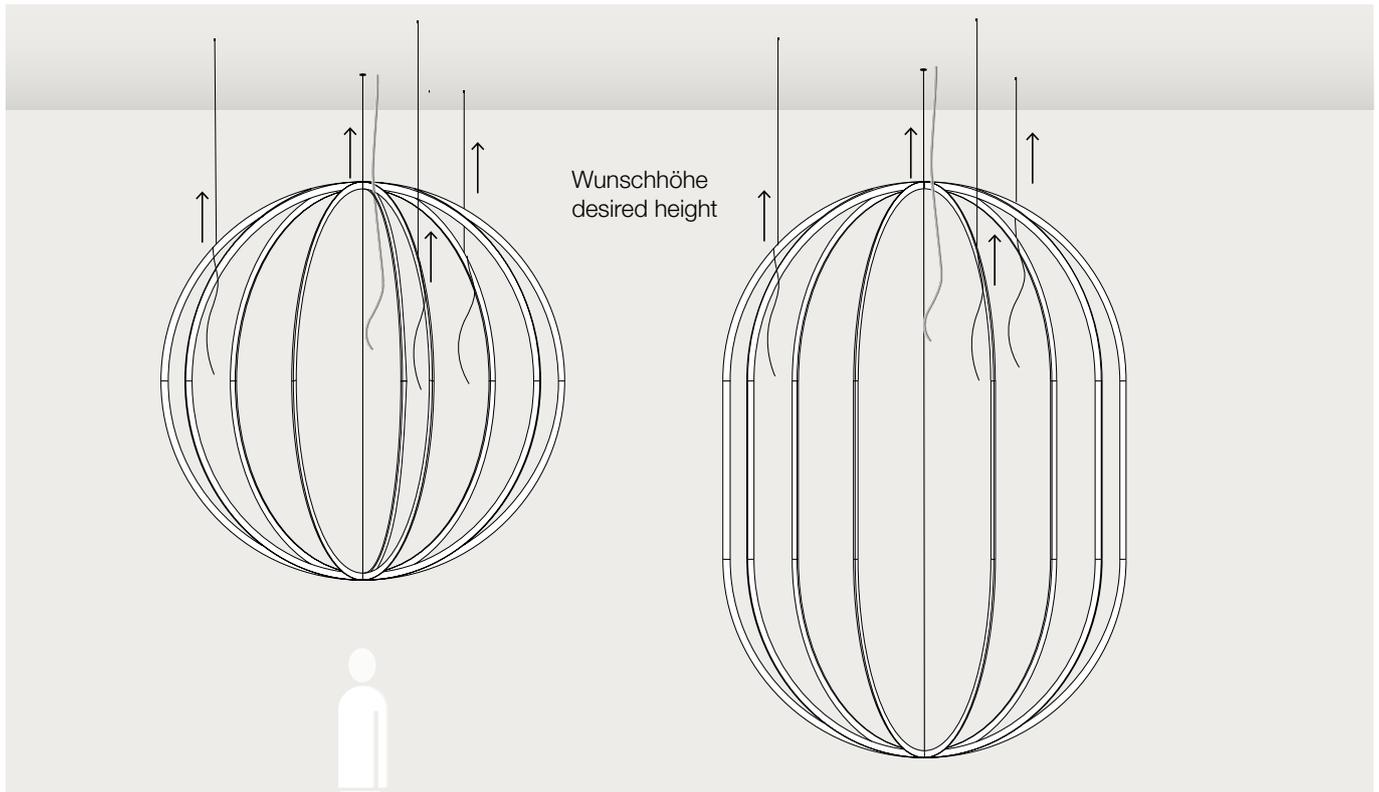
The connector element with the screws is designed for the inner channel. To fix into place, the screws in the connector element are screwed in clockwise. **Make sure the screws are tightened in the right direction!**



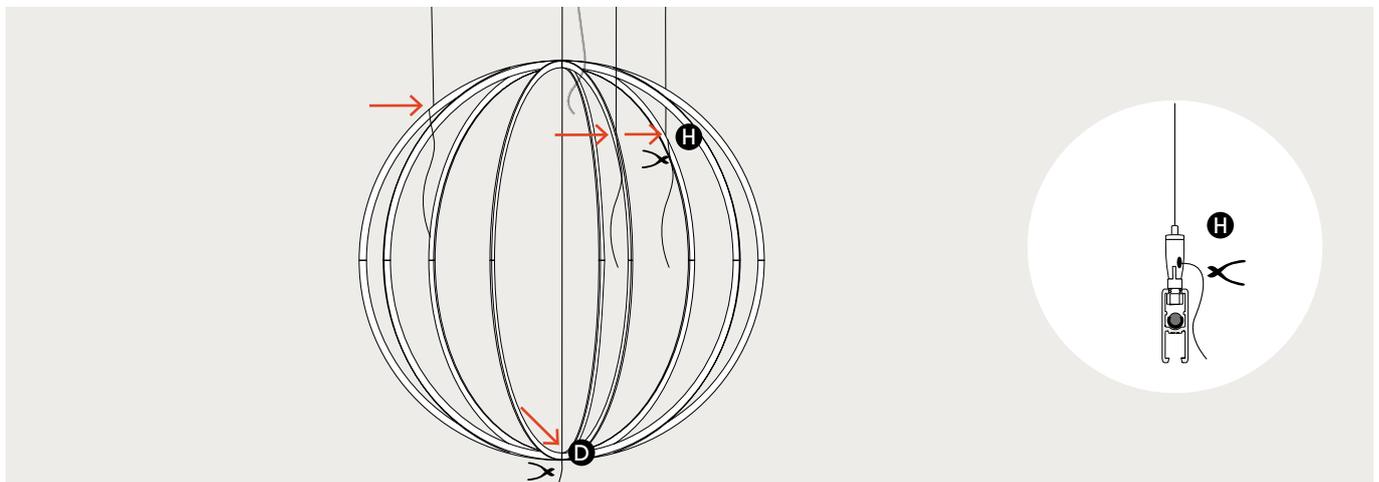
Insert the mechanical connector into the outer channel of the track and screw into place. The countersunk screws on the connector element are screwed in anticlockwise and press into the profile of the track from the inside.

Make sure the screws are tightened in the right direction!

freestyler sphere Installation

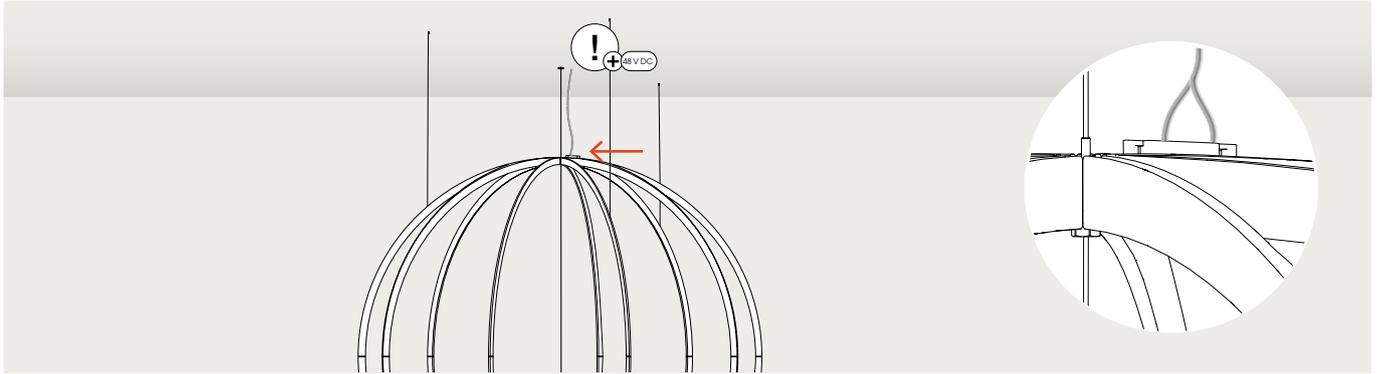


Adjust the entire structure / Sphere to the desired height in the space.



Tighten the locking nut for the **central suspension cable at the star connector (D)**.
Pull the **three cables (H)** into place and fix them firmly. Cut off any projecting cable ends.

freestyler sphere Installation



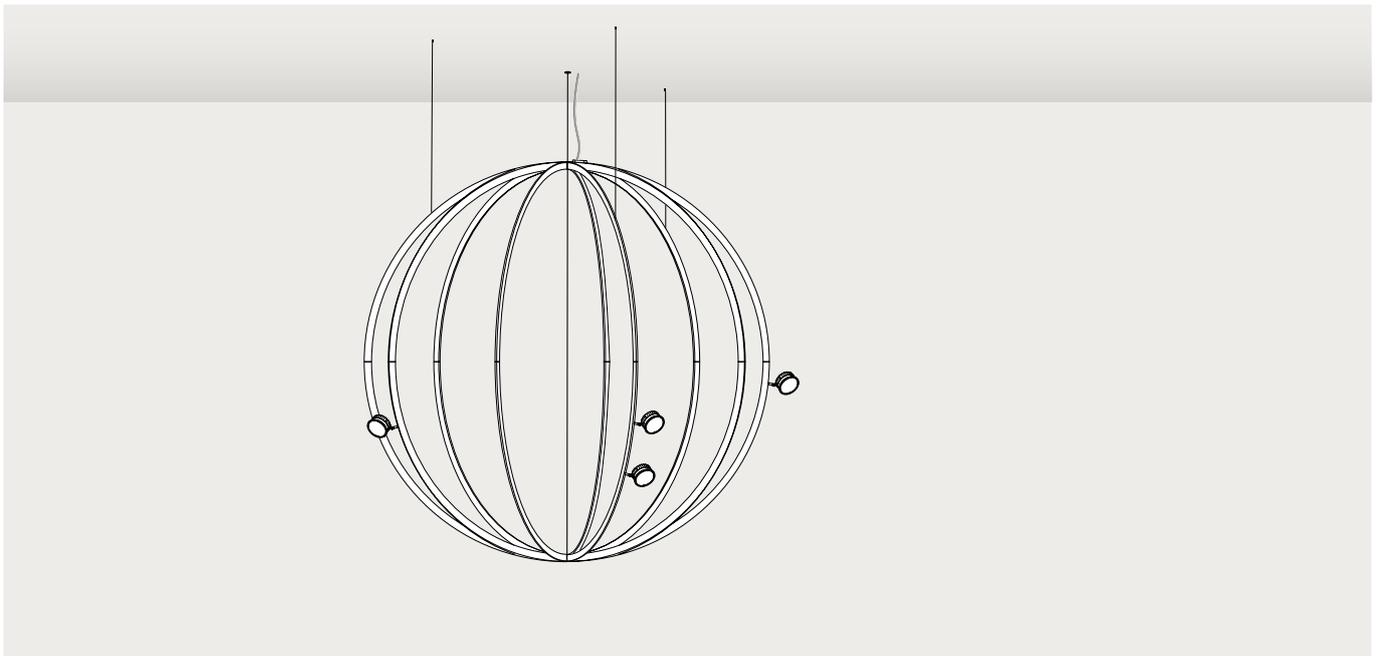
Set up a low-voltage connection. The adapter feed can be locked into place anywhere along the track.

NB: when connecting the power supply and control gear, attention **must be paid to the + / - polarity!**

+ brass cable conductor in the track

- the track itself

As a rule, polarity is marked via a sticker on the feed.



Mount luminaires on the structure and adjust as required. Programme the luminaires to suit users' wishes/requirements.

Sense System® (48 V) by buschfeld

DE

**Allgemeine wichtige Hinweise.
Bitte sorgfältig lesen.**

buschfeld Das Original LightLight® Lichtschienensystem wird seit 1989 von uns produziert. 2016 ist das Sense System® (48 V) entstanden. Es basiert auf dem LightLight System und bietet alle Möglichkeiten einer digitalen Lichtsteuerung über Bluetooth Funkstandard. Die Fixierung aller Leuchten am System und deren elektrische Versorgung erfolgt durch die Systemadapter. Buschfeld® Lichtsysteme sind in sich geschlossene Einleiter-Systeme. Ohne Anpassung und Prüfung können KEINE Leuchten und Komponenten anderer Hersteller in Buschfeld Lichtsystemen betrieben werden. Die Leuchten aus dem LightLight® System (12 V) können nicht im Sense System® (48 V) betrieben werden. LightLight Systeme können jedoch nach Prüfung durch eine Elektro-Fachkraft auf 48 V, Sense System umgebaut werden. Bitte kontaktieren Sie uns. Zusammen prüfen wir welche Schritte für eine Umrüstung notwendig sind.



Die Maximallast beachten! Maximallast des Systems ist durch den maximalen Strom 12,5 A bei 48 V begrenzt, dies entspricht einer Belastung von 600 W.

Sense System
48 V DC

Innerhalb des Sense Systems® bietet Buschfeld Design zwei Lichtsteuerungs Protokolle an. Für die Erstellung von Lichtszenen, -gruppen oder anderen Einstellungen sind die App/Programme von Casambi oder Xicato unbedingt notwendig. Die Sense System Leuchten sind bei Auslieferung sofort einsatzbereit. Buschfeld Design nimmt jedoch keine Ersteinstellung oder Programmierungen vor, wenn nicht anders vereinbart.



Gerät darf nicht im Hausmüll entsorgt werden.



Konformitätserklärung gemäß EU-Verordnung.



Betriebsspannung des Sense System ist 48 V Schutzkleinspannung. Die Systemleuchten können auch unter Spannung eingeriegelt werden. Die Leuchten sind Hot Plug** fähig. Es wird empfohlen, das Einriegeln oder Tauschen von Leuchten erst nach vorheriger Unterweisung durch eine Fachkraft durchzuführen.



Leuchte / System darf nur in trockenen Innenräumen eingesetzt.



Die Installation der System-Lichtschienen muss durch Fachpersonal erfolgen. Spannungsfrei arbeiten.



Die Angaben der technischen Daten beziehen sich auf den Tag der Erstellung. Abweichungen, sowie Änderungen im Zuge des technischen Fortschritts bleiben vorbehalten. Projektbezogene Produkte und Sonderanfertigungen werden individuell gefertigt, daher können Werte und Maße abweichen.

Fotos und Zeichnungen zeigen die Leuchte und Systembauteile zu Imagezwecken. Anpassungen in Elektronik, Ausstattung und Design bleiben vorbehalten.



Externe Dimmer sind nicht zulässig. Die Lichtsteuerung erfolgt ausschließlich über spezifizierte drahtlose Schnittstellen Bluetooth via Casambi oder Xicato.

EN

**General important information.
Please read carefully.**

We have been producing our highly original track system LightLight® since 1989. The trend towards digital lighting control gave rise to the development of Sense System® (48 V) in 2016. Sense System is based on the LightLight system and enables all aspects of digital lighting control using Bluetooth wireless technology. The luminaires and other devices applied on the track are operated via the system-relevant adapters. Buschfeld® lighting systems are self-sufficient single-wire systems. Without comparison and testing, NO luminaires or components from other manufacturers can be operated in Buschfeld lighting systems. LightLight® luminaires (12 V) cannot be operated on Sense System® (48 V) track. That said, LightLight systems can be adapted to meet Sense System requirements, if inspected by a qualified electrician. Feel free to contact us: together we can determine what steps are required to convert your system.

Maximum load of the system. Given a maximum current of 12.5 A, this is limited to 48 V, thus corresponding to a load of 600 W.

Buschfeld Design offers two lighting control protocols within the Sense System®. The app/programs from Casambi or Xicato are absolutely necessary for the creation of light scenes, groups or other settings. The Sense System luminaires are ready for use upon delivery. However, Buschfeld Design does not undertake any initial settings or programming unless otherwise agreed.

Product/product parts must not be disposed of with household waste.

Technical conformity in accordance with EN directives

Sense System has a protective low operating voltage of 48 V. System luminaires can also be mounted when the track is connected to the power supply. That is to say, the luminaires can be hot-plugged**. Mounting or removing luminaires should only be undertaken after being initially instructed by a qualified professional.

Luminaire / track systems are only to be used in interior spaces.

Installation is to be carried out by qualified personnel only! The system must be disconnected during this time.

All technical data refer to the status quo when the data sheet was compiled. Given that developments are part of a continuing process, all data provided is also subject to change. Custom-made products are manufactured individually, so values and dimensions may vary.

Photos and drawings show the luminaires and system components for image purposes. We reserve the right to make adjustments to the electronics, equipment and design.

External dimmers are not permitted. The lighting is controlled exclusively via specified wireless Bluetooth interfaces via Casambi or Xicato.

CASAMBI Buschfeld Leuchten mit Casambi Steuerung können mit Casambi kompatiblen Produkten (z.B. Schaltern/App) gesteuert werden.

www.buschfeld.de/how-it-works/48103

Buschfeld luminaires with Casambi control can be controlled via Casambi-compatible products (e.g. switches/app).

www.buschfeld.de/en/how-it-works/48103

Xicato Die Leuchten mit Xicato Steuerung werden mit Desktop-, Browser- und mobilen Software gesteuert. Xicato hat seinen Quellcode und seine XIG-Gateway unter einer Standardlizenz MIT Free Open Source Software (FOSS) veröffentlicht. Dies ermöglicht Systemintegratoren, Softwareentwicklern von Drittanbietern und Benutzern gleichermaßen mehr Möglichkeiten bei der Inbetriebnahme, Steuerung, Verwaltung und Neukonfiguration der Leuchten im Professional Set-up.

www.buschfeld.de/how-it-works/48104

Luminaires with Xicato control are controlled via desktop, browser and mobile software. Xicato has released its source code and XIG gateway under a standard MIT Free Open Source Software (FOSS) license. This gives system integrators, third-party software developers and users alike more options when commissioning, controlling, managing and reconfiguring the luminaires in the professional set-up.

<https://www.buschfeld.de/en/how-it-works/48104>

Basic on/off Leuchten mit Basic on/off können NICHT gedimmt oder anderweitig gesteuert werden.

Luminaires with Basic on/off CANNOT be dimmed or otherwise controlled.

DE Installation und in Betriebnahme. Wichtige Information! Bitte sorgfältig lesen.



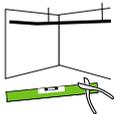
Übersicht aller Montageanleitungen

<https://bit.ly/3Jb4eiN>

EN Instructions for Installation and Use. Important information! Please read carefully.

Overview of all installation/assembly instructions

<https://bit.ly/3w3Hiy9>



Die Montage der Schienensysteme ist für das LightLight® und Sense System® gleich. Bitte beachten Sie dabei die Hinweise beim Anschliessen der Buschfeld Lichtschienen.

The installation of the wall tracks is initially the same for LightLight® and Sense System®. However, please note the instructions when connecting the Buschfeld light tracks.



Beim Anschluss der Einspeisung und des Betriebsgerätes muss zwingend die + / - Polung beachtet werden!

+ Messing-Innenleiter der Schiene

- Schiene selbst

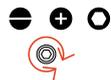
Die Polung ist auch mit einem Aufkleber auf der Einspeisung markiert.

Sense System or LightLight track: when connecting the infeed and power supply, the + / - polarity must be observed!

+ Brass inner conductor of the track

- track itself

The polarity is marked with a sticker on the feed.



Verwenden Sie ausschliesslich die angegebenen Werkzeuge. Beachten Sie die angegebenen Schlüsselweiten und verschiedenen Drehrichtungen bei der Montage.

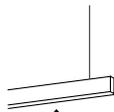
Only use the specified tools. Observe the specified spanner sizes and different directions of rotation when installing.

Leuchten in Betrieb nehmen

- Einsetzen der Leuchte mit Adapter hide oder Adapter lightgrey/black
- Ausrichten und Feststellen der Spots
- Leuchtenschirme

Putting the luminaires into operation

- applying luminaires with a Hide adapter or black/light grey adapter
- adjusting and fixing the spots
- use of shades, if required



Ninety-Five S

<https://bit.ly/37QYtS>

Ninety-Five S

<https://bit.ly/3uDhW9f>

Fifty S und Thirty-Five S

<https://bit.ly/3mPWw>

Fifty S and Thirty-Five S

<https://bit.ly/3E9yngx>



**Hot Plugging bezeichnen den Wechsel und die Wechselbarkeit von Systemkomponenten und Modulen im laufenden Betrieb des Systems. Bekannteste Beispiele für Hot-Plugfähige Technologien sind allgemeine Computer-Schnittstellen wie USB, FireWire, PCMCIA oder auch Bluetooth zum Anschluss von Peripheriegeräten.

**Hot Plugging describes the installation and/or removal of system components and modules while the system is connected to the power supply. The best known examples of hot-pluggable technologies are general computer interfaces such as USB, FireWire, PCMCIA or even Bluetooth for connecting peripheral devices, or more specific examples.

A G Energieeffizienzklasse der Light Engine

Energy efficiency class of the light engine

buschfeld × CASAMBI



Für die Erstinstallation der Casambi App und die Sicherung auf einem Casambi Server ist ein WLAN-Zugang Voraussetzung.



Leuchten und App arbeiten mit Bluetooth / Funkstandard.



App-Store

<https://apple.co/3q5hHRL>



Google Play

<https://bit.ly/3q24ljA>



Erste Schritte in der Casambi App

<https://www.buschfeld.de/how-it-works/48112>

buschfeld × CASAMBI

When installing the Casambi app for the first time, and to ensure the backup on a Casambi server, WLAN access is required.

Luminaires and app are operated via Bluetooth Mesh Casambi.

App-Store

<https://apple.co/3Jg6C7R>

Google Play

<https://bit.ly/3JaEO4V>

Casambi App 1st steps

<https://www.buschfeld.de/en/how-it-works/48112>

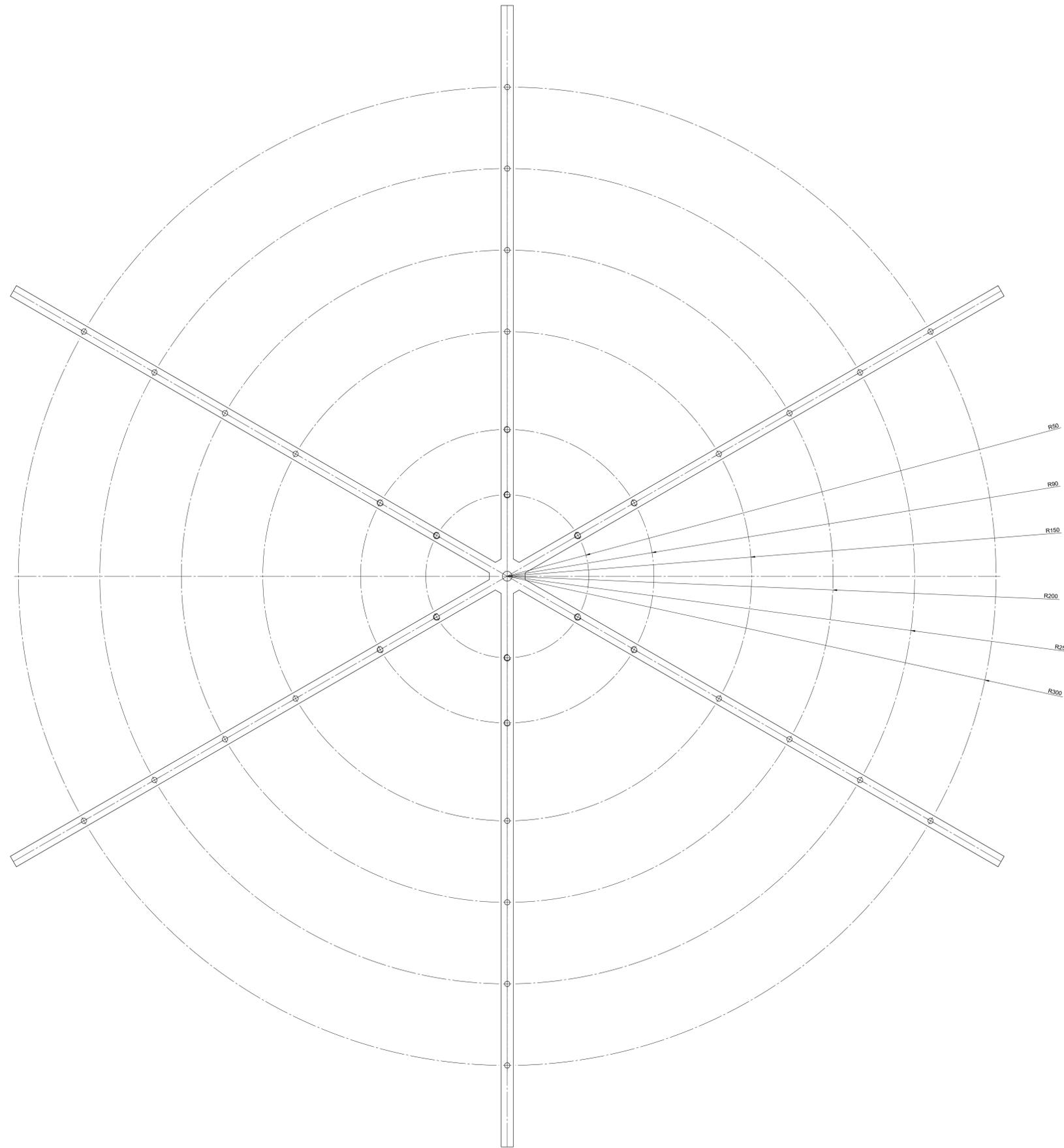


Pflege und Reinigung

Leuchtschirm mit einem weichen Tuch trocken abwischen. Bei starken Verunreinigungen das Tuch leicht mit Wasser anfeuchten. Keine Lösungsmittel oder Reiniger verwenden.

Cleaning and maintenance

To clean the shade wipe with a dry, soft cloth. Heavier soiling can be removed with a damp cloth. Chemical cleaners or solvents are not to be used.

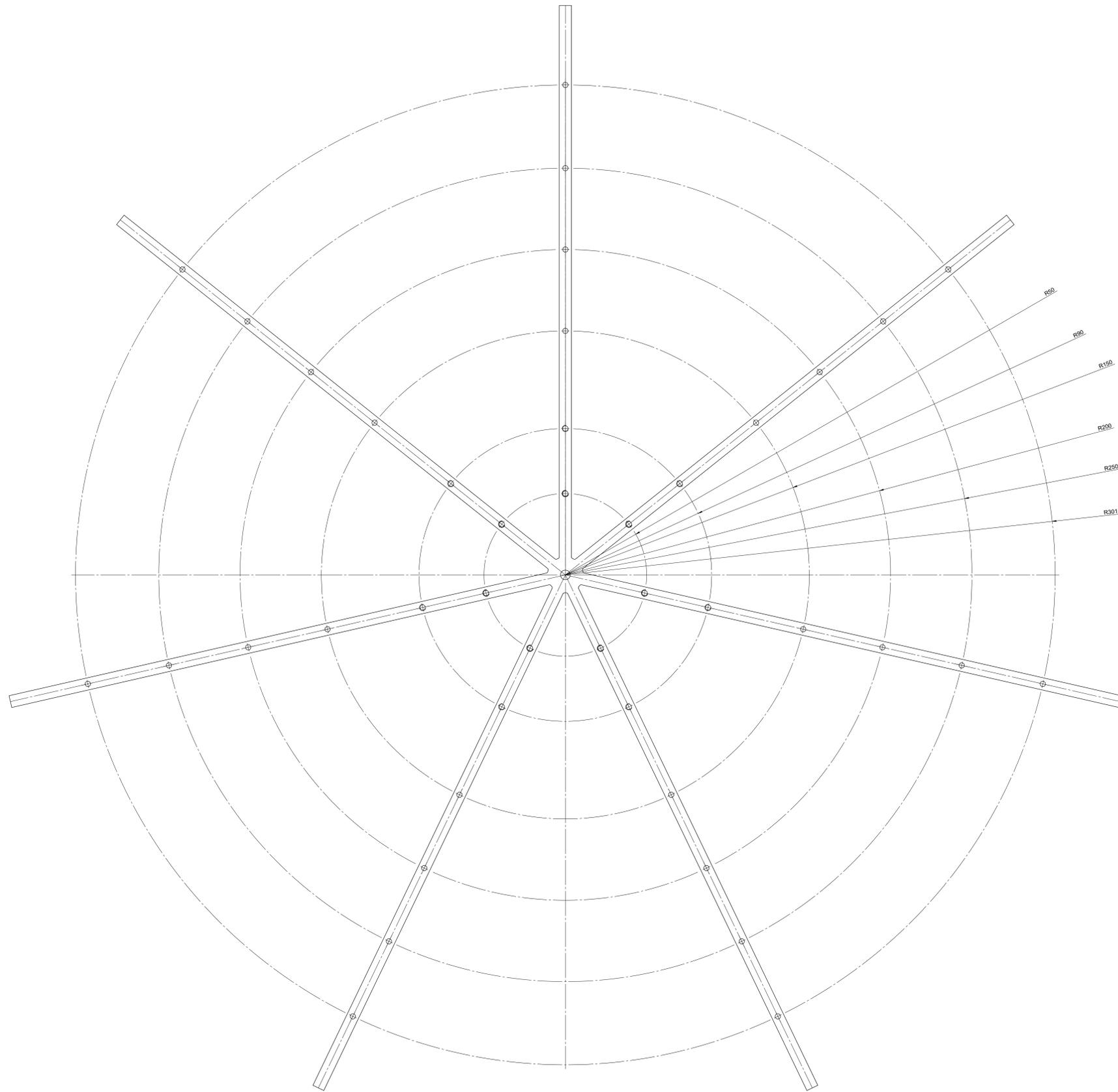


Abmessungen in Millimetern	Zeichn. Nr.	Revis.	Datum
Aggregatname	03604	1	21.12.21
DRS-SD 216 mm	03604		
Werkzeugeigenschaft			
Zielerklärung			
Zielerklärung			
Gezeichnet	Zg.-Nr.	03604	
Montiert	Artik.Nr.		
Material	Material	03604 - Freestyler Bohrschablone, für	
Überlebe	Stück	Revisions	Blatt 1 von 1
AD	1.1		



Freestyler Bohrschablone Eier

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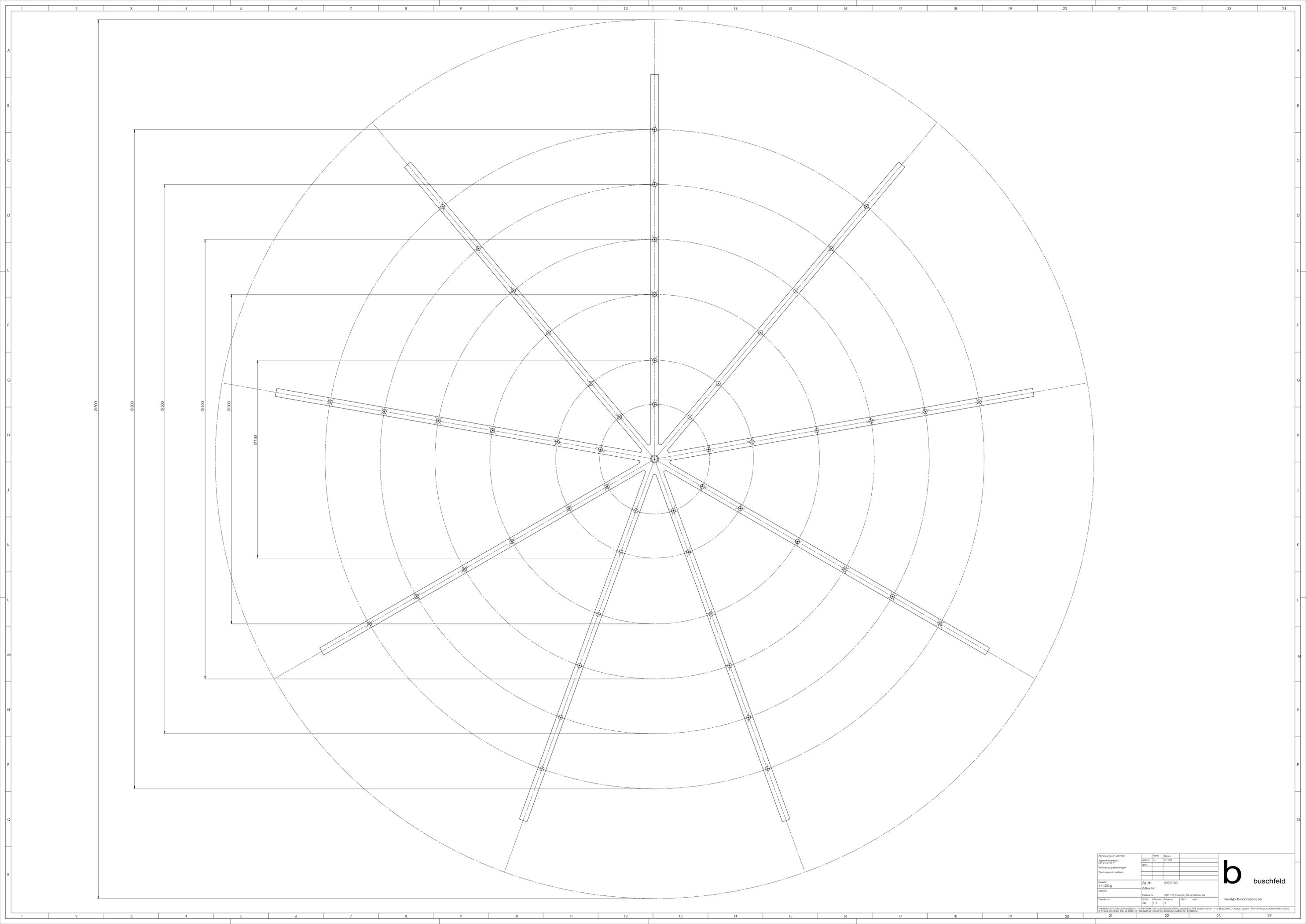


Abmessungen in Millimetern	Zeichn. Nr.	Datum	
Aggregatnummer	0901	01	21.12.20
DR-SD 216 mm	0901		
Werkzeugeigenschaft			
Zielerreichung			
Drehrichtung			
Geometrie	Zu-Nr.	03602	
Material	Artikel-Nr.		
	03602		
	03602		
Übersicht	Stück	Menge	Revisions
AD	1/1		von 1



Freestyler Bohrmaschinen für

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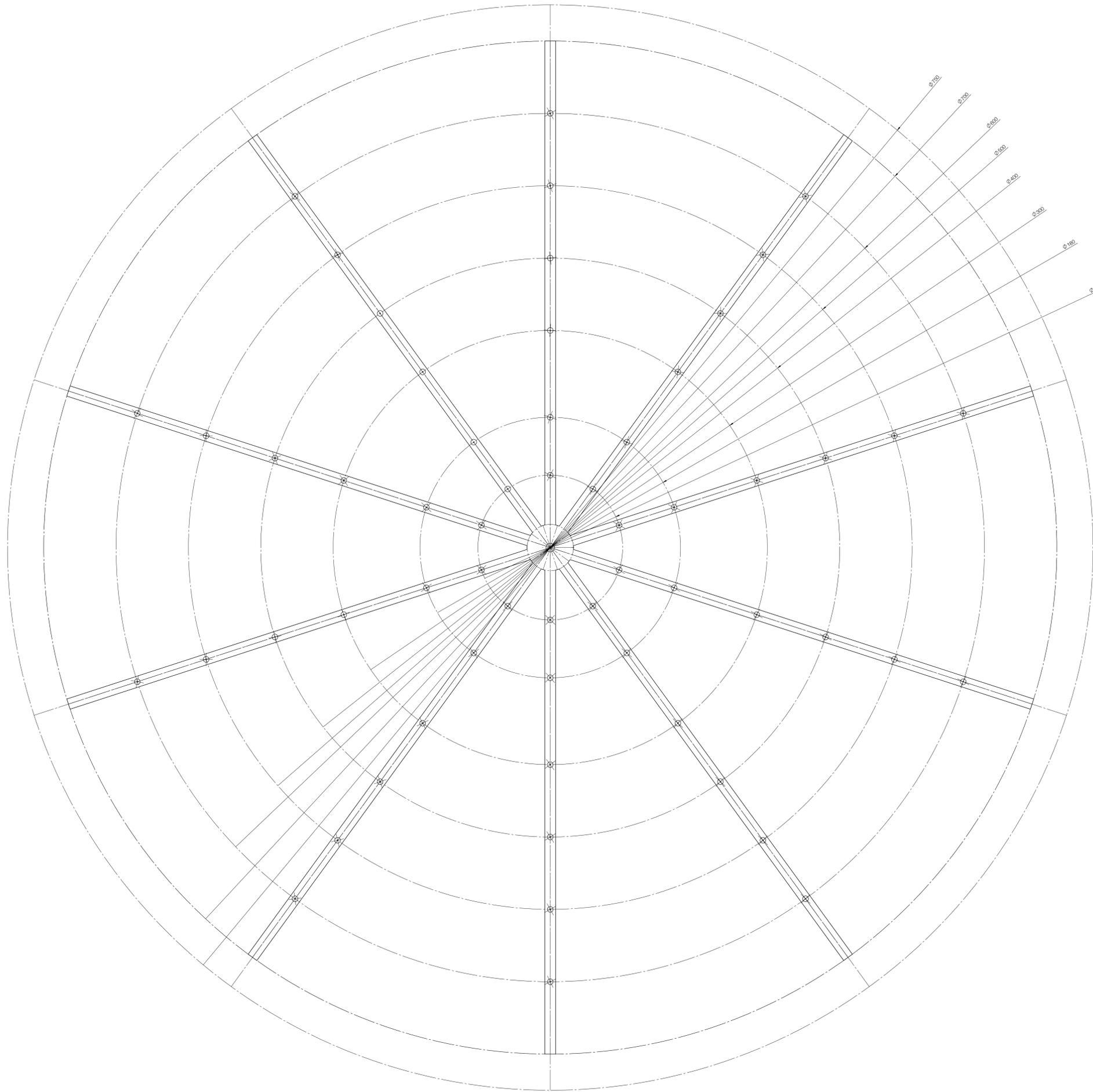


Abmessungen in Millimetern		Datum	
Aggregatname	Zeichn. Nr.	211123	
DN 500 216 mm	gear		
Werkstoffe gemäß Lieferant			
Drehrichtung aufbauen			
Geometrie			
Material			
Geometrie	Zu-Nr.	02017-AD	
Menge	Artik.Nr.		
	02017-AD	Freestyler Bohrschleifscheibe 500	
Übersicht	Stück	Messmaß	Revisions
AD	1:1		Blatt 1 von 1



Freestyler Bohrschleifscheibe 500

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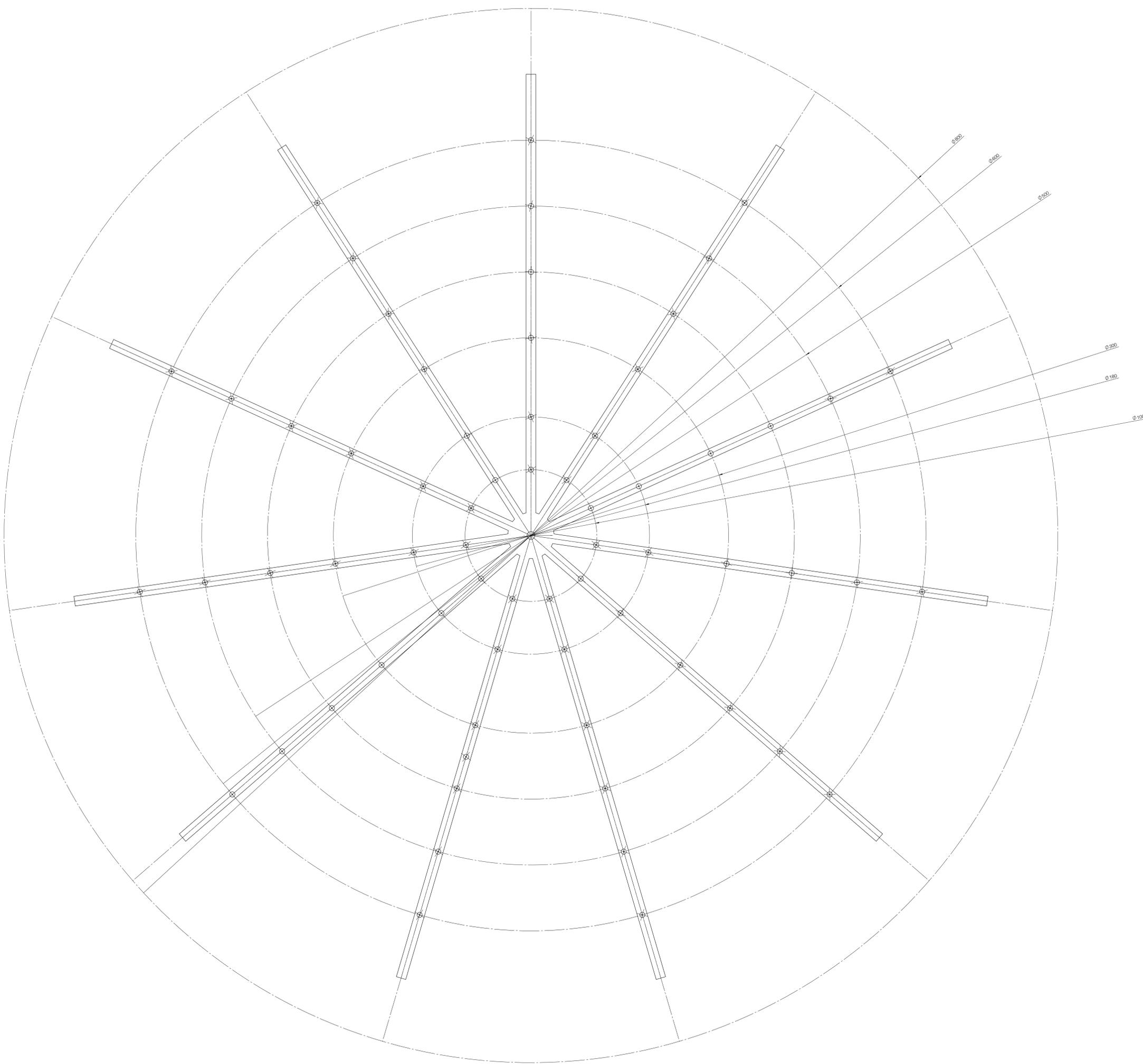


Abmessungen in Millimetern	Zeichn. Nr.	Revis.	Datum
Aggregatnummer	0001	00	23.10
DR-NO 21610	0001		
Werkzeuge und/oder Fertiger			
Zielerreichung			
Drehrichtung			
Geometrie	Zu-Nr.	00011_A0	
Material	Artik.Nr.		
	00011_A0	Freestylor Bohrschablone 10er	
Übersicht	Stück	Revisions	Blatt 1 von 1
	1	1	



Freestylor Bohrschablone 10er

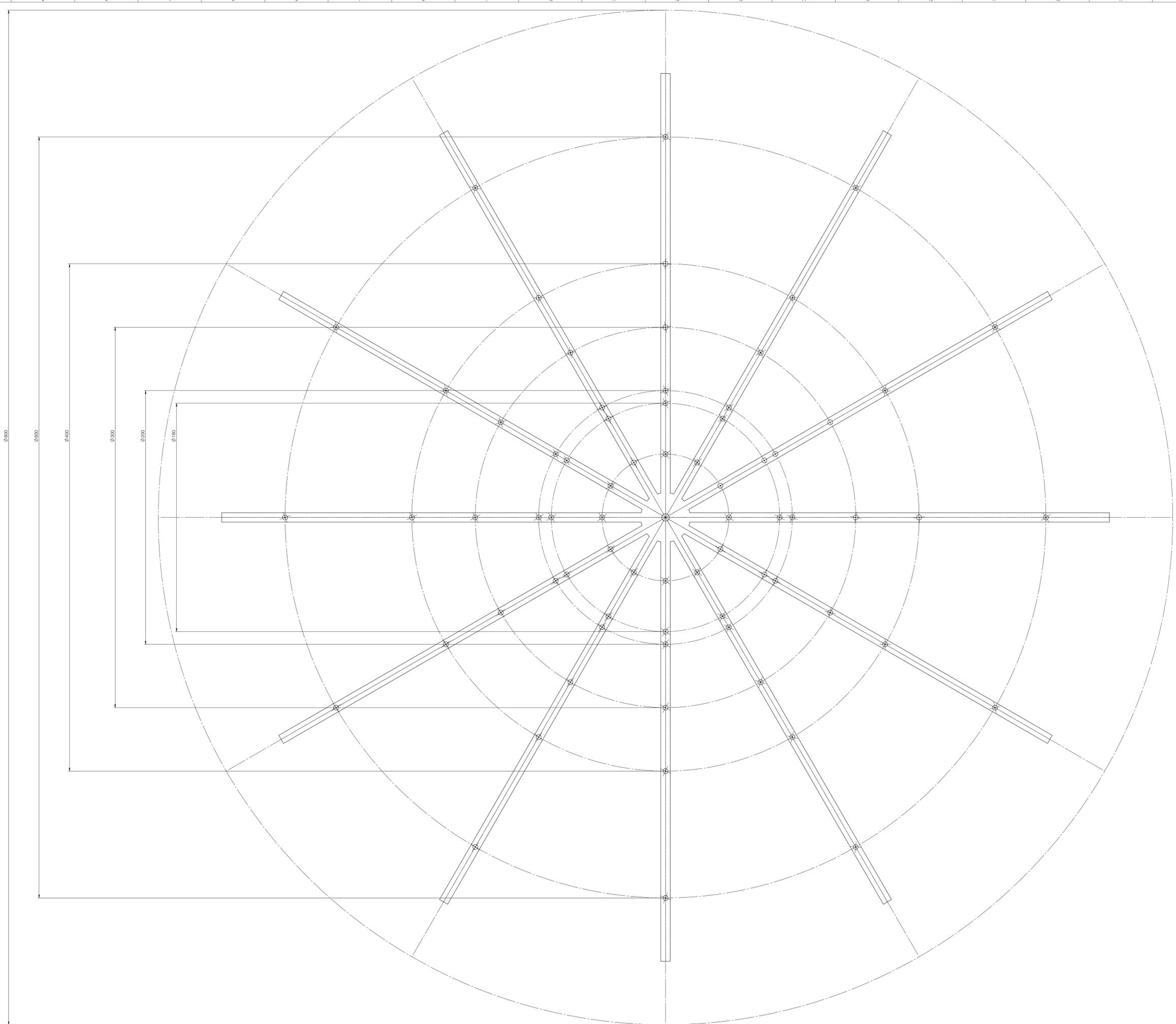
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Abmessungen in Millimetern		Datum	
Aggregatname	Zeichn. Nr.	133.3.13	
DN 500 216 mm	Zeichn. Nr.		
Werkstoffe gemäß Lieferant			
Zielerklärung des Kunden			
Gezeichnet	Zug-Nr.	02016	
135,843 g	Artikel-Nr.		
Masse	Stamm-Nr.	02016 Freestyl-Bohrschablone 1 for	
Überprüft	Stück	Menge	Revisions
AD	1/1		von 1



Freestyl-Bohrschablone 1 for



$\varnothing 9500$
 $\varnothing 8500$
 $\varnothing 4400$
 $\varnothing 5500$
 $\varnothing 2500$
 $\varnothing 1500$

Abmessungen in Millimetern	Zeichn. Nr.	Revis.	Datum
Aggregatname	0201	10	22.11.18
DR 500 216 mm	0201		
Werkzeugeigenschaften			
Drehrichtung			
Druckrichtung			
Material	0201-16		02015-AD
Geometrie	AD		
Skizze	0201-16		
Revisions	1		von 1
Freestyler Bohrmaschine 120V			



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