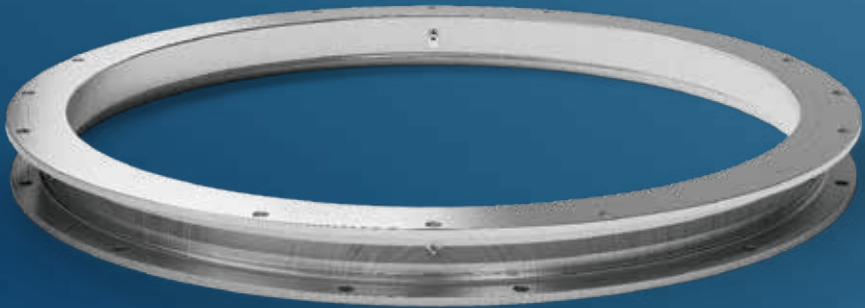


we think transport



# TWO ARE BETTER THAN ONE.

BPW turntables with double-row ball race

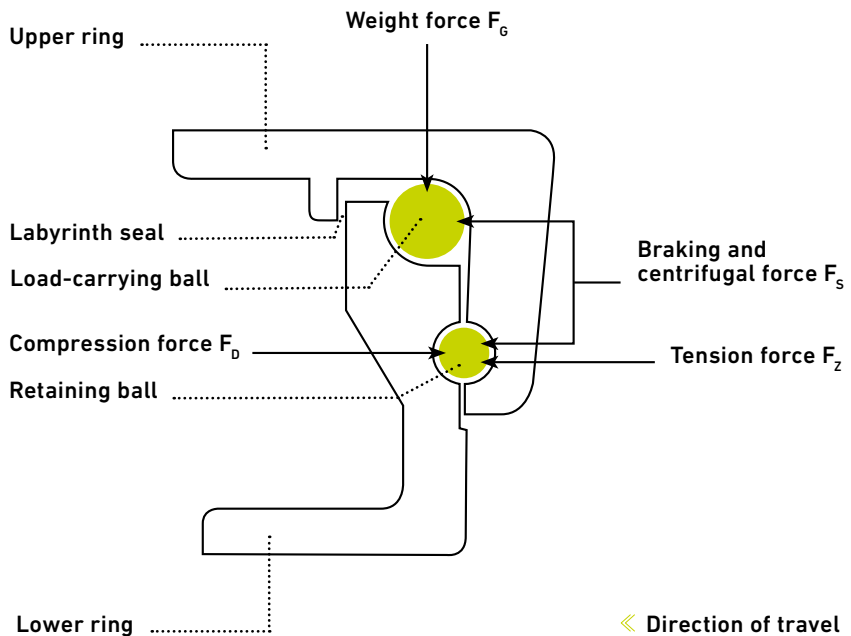


# Robust, long-lasting and cost-effective.

Turntables allow 360-degree rotation through two steel rings connected by ball bearings. BPW turntables are used where vehicle construction places the highest demands on design and material. Compared with conventional single-row systems, BPW turntables differ in the quality features of the double ball row: The design superiority consists in the fact that the additional second ball row ensures the optimum distribution of the axial and radial forces that occur.

## CONVINCING BENEFITS

- **Highest possible safety**, since the axial and radial forces are separated can be transferred to the two rows of balls.
- Ready for extreme conditions: Due to **special material selection** and special manufacturing process, the highest quality is achieved. The turntable profiles from high solid steel are cold formed, butt welded and calibrated.
- The ball raceway is hardened by the supporting balls under load.
- The interior is permanently protected against dust and moisture by a **labyrinth seal**. Dirt protected.
- The **corrosion-resistant paint** (RAL 9005) is weatherproof, impact-resistant and guarantees with 504 hours salt spray test a high surface protection. It can be used as a primer for a later overpainting.
- The sum of all advantages guarantees reliability, smooth running and highest durability.



### OPTIMUM TRANSMISSION OF FORCES

- BPW turntables have a row of load-carrying balls and a row of retaining balls between the upper and lower ring.
- The axial loads acting on the turntable are transferred vertically by the large load-carrying balls.
- The horizontal tension and compression forces are transferred by the smaller retaining balls.
- The retaining ball row links the upper and lower rings.
- The moment loads from the braking and centrifugal force are absorbed by the load-carrying and retaining balls acting together.

# For an optimum connection.

## CONSTRUCTION AND INSTALLATION INFORMATION

- The permissible axial load (marked on the type plate) applies only in the compression direction for vehicles with a speed of up to 105 km/h. For vehicles with a speed of up to 30 km/h, the axial load is permitted to be 25% higher.
- To ensure reliable and safe operation, the supporting structure for the lower and upper ring must be even, level and torsionally rigid. Unevenness on the supporting surfaces must not exceed 1.5 mm. Greater irregularities must be evened out. The supporting surface (at least four surface sections of the same size, spread evenly around the circumference) must support at least 50% of the turntable flanges.
- After having been bolted in place, the turntable flanges must be additionally secured against movement at the top and bottom with at least four weld-on plates (shear blocks) so that the shear forces that occur are not absorbed solely by the connecting bolts.
- We recommend the use of drilled turntables. If drilling work is performed at a later time, drilling chips and coolant must not enter the ball tracks.
- Prior to commissioning, turntables must be filled with BPW ECO-Li 91 special long-life grease (lithium complex grease) via the grease nipples.
- BPW turntables are not suitable for applications involving multiple rotations of over 360°.
- BPW turntables are not designed for eccentric loads.
- Special applications must be agreed with us.

## INSTALLATION INFORMATION FOR BOLTING

- The bolts should meet at least strength grade 8.8.
- Using bolts of strength grade 10.9 with a fine thread, HV washers and self-locking nuts will delay possible loosening of the bolts.



THE BPW EFFECT

2x

longer service intervals



## MAINTENANCE

- Grease the turntable bearing via the grease nipples with BPW ECO-Li 91 special long-life grease (lithium complex grease) every 25,000 km or at least every three months (every two to three weeks in extreme operating conditions). Do not mix the grease with other types of grease (calcium or sodium soap grease).
- Check all bolt connections regularly and retighten if necessary.
- No welding work may be performed on BPW turntables. During welding work on the vehicle, the earth cable must be attached so that no power can flow through the turntable.

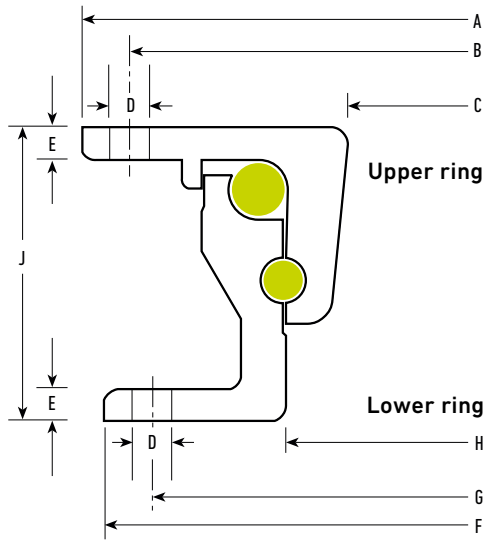
# BPW turntables

## Standard product range

BPW turntables (drilled) <sup>1)2)</sup>		BPW turntables (undrilled) <sup>1)</sup>			
Type	BPW No.	Type	BPW No.	Max. axial load in t <sup>4)</sup>	Max. trailer total weight in t
		DK 80/5	02.6415.01.00	5	25
DK 80/8/0808	02.6415.10.00	DK 80/8	02.6415.11.00	8	40
DK 80/10/1108	02.6415.13.00	DK 80/10	02.6415.14.00	10	50
DK 80/16/0810A <sup>3)</sup>	02.6415.17.00 <sup>3)</sup>	DK 80/16 <sup>3)</sup>	02.6415.18.00 <sup>3)</sup>	16	50
DK 90/10/1208	02.6415.66.00			10	50
DK 90/10/1212	02.6415.70.00	DK 90/10	02.6415.71.00	10	50
DK 90/12/1008	02.6415.24.00	DK 90/12	02.6415.23.00	12	50
DK 90/13/1108	02.6415.20.00	DK 90/13	02.6415.22.00	13	55
DK 90/13/1208	02.6415.67.00			13	55
DK 90/13/1212	02.6415.72.00	DK 90/13	02.6415.73.00	13	55
DK 90/14/1008	02.6415.34.00	DK 90/14	02.6415.33.00	14	55
DK 90/16/1108	02.6415.30.00	DK 16	02.6415.31.00	16	60
DK 90/16/1212	02.6415.74.00	DK 90/16	02.6415.75.00	16	60
DK 90/20/1108	02.6415.41.00	DK 90/20	02.6415.40.00	20	60
DK 90/20/1212	02.6415.76.00	DK 90/20	02.6415.77.00	20	60
DK 90/26/1212	02.6415.78.00	DK 90/26	02.6415.79.00	26	70
DK 90/30/1212 SP <sup>5)</sup>	02.6415.80.00	DK 90	02.6415.81.00	30	70

Type designation, e.g. **DK 90/20/1212**

**DK** = double-row ball race · **90** = overall height (J) 90 mm · **20** = permissible static axial load 20 t  
**1212** = outer diameter of the upper ring (A) 1,208 mm + 12-hole drilling pattern



### Upper ring

Height J mm	Weight kg	Outside Ø A mm	Bolt circle Ø B mm	Drill pattern	Inside Ø C mm	Drilling Ø D mm	Flange thickness E mm
80	38	664	(636)		519,5	(14)	9
80	51	894	866	01	749,5	16	9
80	67	1.108	1.074	03	959,5	16	9
80	52	894	866	05	749,5	16	9
90	93	1.208	1.174	03	1.042,0	18	10
90	93	1.208	1.174	07	1.042,0	18	10
90	75	1.000	966	03	834,0	18	10
90	85	1.108	1.074	03	942,0	18	10
90	93	1.208	1.174	03	1.042,0	18	10
90	93	1.208	1.174	07	1.042,0	18	10
90	75	1.000	966	03	834,0	18	10
90	85	1.108	1.074	03	942,0	18	10
90	93	1.208	1.074	07	1.042,0	18	10
90	85	1.108	1.074	03	942,0	18	10
90	93	1.208	1.174	07	1.042,0	18	10
90	93	1.208	1.174	07	1.042,0	18	10
90	93	1.208	1.174	07	1.042,0	18	10

<sup>1)</sup> Special versions on request. <sup>2)</sup> See illustrations for drilling patterns. <sup>3)</sup> Only use for semi-trailer coupling.

<sup>4)</sup> Permissible axial load = static axial load over the steered axle, which acts on the turntable.



Lower ring						Screws per ring	
Outside Ø F mm	Bolt circle Ø G mm	Drill pattern	Inside Ø H mm	Drilling Ø D mm	Flange thickness E mm	Pieces	Thread Ø
650	(622)		554	(14)	9	8	(M 12)
880	852	02	784	16	9	8	M 14
1.095	1.060	04	994	16	9	8	M 14
880	852	06	784	16	9	10	M 14
1.195	1.160	04	1.079	18	10	8	M 16
1.195	1.160	08	1.079	18	10	12	M 16
987	952	04	871	18	10	8	M 16
1.095	1.060	04	979	18	10	8	M 16
1.195	1.160	04	1.079	18	10	8	M 16
1.195	1.160	08	1.079	18	10	12	M 16
987	952	04	871	18	10	8	M 16
1.095	1.060	04	979	18	10	8	M 16
1.195	1.160	08	1.079	18	10	12	M 16
1.095	1.060	04	979	18	10	8	M 16
1.195	1.160	08	1.079	18	10	12	M 16
1.195	1.160	08	1.079	18	10	12	M 16
1.195	1.160	08	1.079	18	10	12	M 16

<sup>9)</sup> Also approved for tracking units with a max. turntable installation height (measured from the ground to the lower edge of the turntable) of Hmax. <= 1,100 mm

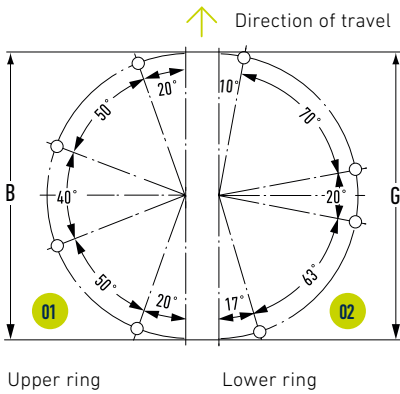
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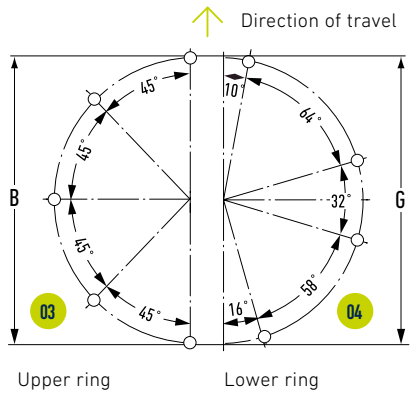
# Technical information

## 8-HOLE

ONLY DK 80 / 8

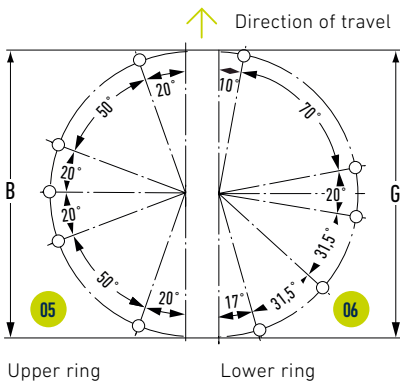


## 8-HOLE

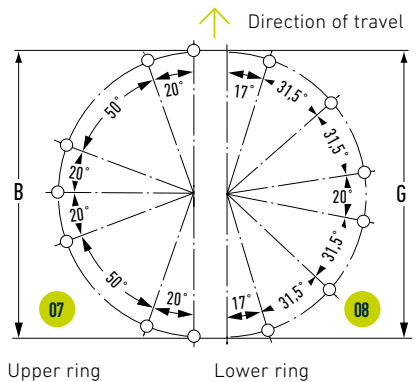


## 10-HOLE

ONLY DK 80 / 16 A



## 12-HOLE



The brands of the BPW Group:



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**BPW Bergische Achsen Kommanditgesellschaft**

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