CABLE DUCT II
New cable duct with innovative features

Plastic cable ducts made by Wirthwein offer the optimal solution to the installation of power and data lines. In the meantime, more than 1,000,000 meters of cable ducts have been installed by Deutsche Bahn AG and many other companies around the world. Cable ducts made by Wirthwein are also applied in solar arrays, wind power plants, and other installations.

Our experience in combination with the wide range of applications of cable ducts made by Wirthwein provides many solutions to a great variety of structural requirements. Our customers profit from a quick, flexible, and safe installation of their signaling and communications tools in our cable duct systems.
Cable ducts made by Wirthwein – your benefits

- Thanks to low product weight no lifting gear required for installation
- Troughs reusable for changing construction sites
- 90° curves without additional expenses with a maximum installation radius after 45 meters possible (radius ≥ 30 m)
- Easy and economic execution of miter cuts for redirections and subsidence
- Fire protection classification K1 as defined in DIN 53438 part 2
- Perforations in ground and sides of troughs for cable inlets and outlets
- Integrated connection system for quick assembly and disassembly
- Cable ducts made by Wirthwein are maintenance-free

Cover innovation:
- New and efficient cover locking system
- Cable duct cover with high load capacity of class A15 as defined in DIN EN 1433/DIN EN 124
- Cable inspection on tracks made easy as covers can be opened separately

Accessories:
- Matching end plates for track ends
- Separators to isolate power and signaling cables
- Customized production of angle elements
- Pegs to fix cable duct troughs for above-ground installation or very loose ground
- Wrenches to open/close cable duct covers
- Special screws to additionally lock cable duct covers
SAFE, FLEXIBLE, AND RELIABLE
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Cable Duct II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>1,000 mm</td>
</tr>
<tr>
<td>Width (inside/outside)</td>
<td>250 mm/360 mm</td>
</tr>
<tr>
<td>Height (inside/outside)</td>
<td>155 mm/215 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>7 kg</td>
</tr>
<tr>
<td>Material</td>
<td>PP copolymer (UV-resistant, fully recyclable)</td>
</tr>
<tr>
<td>Fire protection classification</td>
<td>K1 as defined in DIN 53438 part 2</td>
</tr>
<tr>
<td>Dimensional stability</td>
<td>-30°C to + 80°C</td>
</tr>
<tr>
<td>Load-carrying capacity</td>
<td>15 kN (class A15) as defined in DIN EN 1433/DIN EN 124</td>
</tr>
<tr>
<td>Electrical properties</td>
<td>Surface resistance approx. 1.015 Ω • cm</td>
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<tr>
<td></td>
<td>Flow resistance Ed approx. 0.6/0.8 at 100 kV/mm as defined in DIN VDE 303-ICE 243</td>
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Wirthwein manufactures angle elements for redirections tailored to individual customer requirements. It is possible to insert separators in cable ducts to isolate or separate lines. Moreover, we offer matching end plates to be assembled at the end of tracks. Cable ducts made by Wirthwein can be fixed with pegs for above-ground installation or very loose ground. Special screws additionally lock cable duct covers and provide for an increased protection.

**Accessories for supplementary equipment**
Preparation

Please ensure that the excavated trench is as plain as possible to provide for an optimum installation of the cable ducts in the ground. The excavated foundation has to be filled with an installation layer of at least three centimeters. Grit, gravel, sand, or also fine-grained excavation material serve as fillers. For above-ground installation or very loose ground please use pegs to fix the troughs.
Assembly of cable ducts

Please note: Prior to installing the cable ducts, please determine the direction the cover should be opened to later!

1. Put the cable ducts into the prepared trench and connect them by means of an integrated connecting system.

2. Press the cable ducts straight into the installation layer so that the ribbed bottom sinks in (image 1) and the cable duct base rests on the entire surface.

   Prior to assembling the cover, please ensure that the hinge area is free of dirt!

3. Put the cover vertically on the hinge (image 2). Then push it to the right.

4. The cover can be closed now.

5. Horizontal bars on the outside of the cable ducts ensure that they are held in place and do not slip out of position when material is filled in. Please drive pegs into the ground through the holes provided in the base for an increased stability regarding direction and position.

6. Finally, please use our special wrench to lock the cover.

7. To do so, put the wrench into the provided notch of the adjacent cover. By turning the wrench the cover is locked (image 3).

8. You can fix the cover by means of special screws to additionally secure the cable ducts.
YOUR PROJECT WITH WIRTHWEIN

You have an inquiry, require technical advice or would like us to call you back? Then please get in touch with us. We are fully at your disposal.

For commercial concerns please contact the Railway team of Wirthwein AG at:
Phone +49 7933 702-850

For technical concerns please contact the team of Wirthwein Brandenburg GmbH & Co. KG at:
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For more than 50 years, the Wirthwein brand has stood for innovative processing of plastic parts

- Thermoplastic injection molding of complex technical plastic parts with shot weights from 3 g to 10 kg
- Processing of all common thermoplastics
- Machines with clamping forces from 150 kN to 17,000 kN
- Capacity: more than 500 injection molding machines and 15 blow mold machines

(Status: March 2019, additional investment is planned)
Wirthwein guarantees an excellent quality standard, which also our numerous certifications stand for. In the railway sector we produce pursuant to the corresponding provisions and regulations of Deutsche Bahn AG. Licenses, certificates, and audits certify our premium production quality standard.

Please find a regularly updated overview of licenses and certifications according to different provisions and regulations at www.wirthwein.de/en/downloads