

Preparing a foundation

Installation manual

EN



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1 About this document

The manual is intended for the operator / installer and contains all the important information for preparing a foundation for the following MENNEKES charging stations / payment terminals:

Charging columns

- Basic
- Premium
- Smart
- AMEDIO®

Wallbox AMTRON®

- Installing on a pedestal (part no. 18592 / 18593)
- Installing on a stainless steel column (part no. 18558 / 18566)
- Installing on a concrete column

Wallbox AMTRON® 4You / 4Business

- Installing on a pedestal (part no. 18663 / 18664)

Wallbox AMTRON® Twincharge

- Installing on a stainless steel column (part no. 18632 / 18633)

Wallbox AMTRON® Compact

- Installing on a pedestal (part no. 18594 / 18595)

Payment terminal

- Hectronic HecPay (part no. 18700, 18701, 18702)

In this manual, the charging columns, pedestals, stainless steel columns and concrete columns are referred to as the "product".

This manual is a supplement to the operating and installation manual for the charging station.

- 📖 Follow the instructions in the operating and installation manual for the charging station.

Observe all additional documentation that applies to the use of the product.

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1.1 Website

www.mennekes.org/emobility



2 Installation

Information about the choice of location and the work required in the upstream electrical installation is provided in the operating and installation manual for the charging station.

-  Follow the instructions in the operating and installation manual for the charging station.

2.1 Preparing the foundation and installing the product on the foundation



When preparing the foundation, the operator / installer is responsible for ensuring that an effective earthing and lightning system is provided and that the charging station is connected to this system. Applicable standards and statutory regulations, especially regarding protective earthing, must be observed.

- ✓ Requirement: the floor must be sufficiently load-bearing, free from subsidence and frost-proof.

When preparing a foundation, the following options are available:

1. Build a new foundation yourself.
2. Use an existing foundation.
3. Use a prefabricated foundation from MENNEKES.
4. Use an alternative foundation solution.

2.1.1 Compatibility

The following table shows which products and foundations are compatible with each other.

	Charging columns	Concrete columns	Stainless steel columns (all product variants)	Pedestals (all product variants)	Electronic HecPay
Self-made foundation	x	-	x	x	x
Existing foundation	x	x	x	x	x
Prefabricated foundation from MENNEKES	x	-	x	x	x
Alternative foundation solution	x	x	x	x	x


2.1.2 Self-fabricated foundation

Building a foundation yourself

To build a foundation yourself, you will need the associated foundation or adapter plate and foundation fixing set. These are available as accessories from MENNEKES.



The following chapter provides an overview of the accessories required for each respective product:

-  "4 Appendix" [15]

Exceptions:

- Stainless steel columns for AMTRON® Twincharge: the base plate for the stainless steel columns is needed to install the foundation fixing set. Before installing the foundation fixing set, the base plate must be loosened from the stainless steel columns (see instructions for stainless steel columns).
- The foundation fixing set is not suitable for installing concrete columns as the strength of the threaded rods of the foundation fixing set is insufficient.

- ▶ When building a foundation, the technical drawings in the appendix must also be observed.

📄 “4 Appendix” [▶ 15]

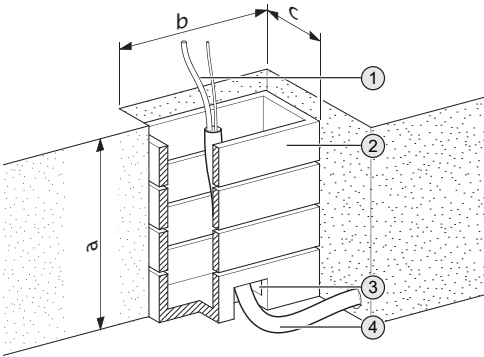


Fig. 1: Formwork

	Basic, Premium, Smart (S / N / SN), AMEDIO®, Stainless Steel Column, Pedestal*, Hectronic HecPay* [mm]	Smart T / ST / T PnC (NFC) [mm]
a	900	1000
b	900	900
c	600	900

*These dimensions may be too large for the pedestal and for Hectronic HecPay. After an independent check, the dimensions for the pedestal and for Hectronic HecPay can be reduced if necessary (see installation information: Hectronic HecPay).

- ▶ Excavate the hole for the foundation according to the specified dimensions.
- ▶ Use right-angled shaft elements (2) as permanent formwork.
- ▶ Route the supply line (1) and the data line in an empty conduit (4) in the formwork.

The diameter of the empty conduits must fit the opening in the foundation plate or adapter plate. Possible empty conduits for the respective foundation plate or adapter plate (part number):

- 18514: 2 x empty conduits with max. Ø 70 mm
- 18515: 2 x empty conduits with max. Ø 90 mm
- 💡 ■ 18567: 2 x empty conduits with max. Ø 100 mm
- 18590: 2 x empty conduits with max. Ø 50 mm
- 18591: 2 x empty conduits with max. Ø 70 mm
- Base plates for stainless steel column for AMTRON® Twincharge: 2 x empty conduits with max. Ø 70 mm

- ▶ Close the opening (3) for the empty conduit (e.g. with expanding foam) to prevent the concrete from leaking out.

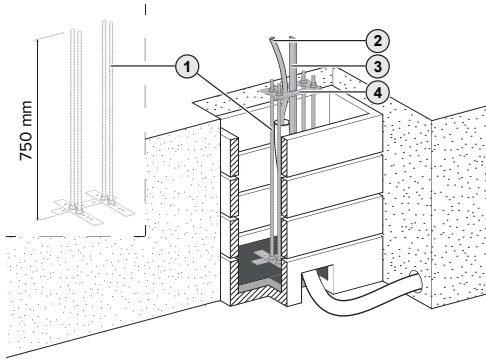


Fig. 2: Insert the foundation fixing set including the foundation plate (example: AMEDIO®)

- ▶ Install the foundation fixing set (1) including the foundation plate / adapter plate / base plate (4).
- 📖 Installation manual for the foundation fixing set.
- ▶ Pour a few centimetres of concrete into the formwork and allow to set so that the threaded rods of the foundation fixing set protrude at least 50 mm from the base (e.g. paving stones or asphalt). The surface must be flat.
- ▶ Allow the concrete to set.
- ▶ Insert the foundation fixing set including the foundation plate / adapter plate / base plate into the formwork in the desired position.
- ▶ Using the nuts, horizontally align the foundation fixing set including the foundation plate / adapter plate / base plate.
- ▶ Route the supply line (2) and the data line through the opening in the foundation plate / adapter plate / base plate.
- ▶ If necessary, install the foundation earth electrode (3) as per DIN 18014 (e.g. iron strips). Observe local regulations.

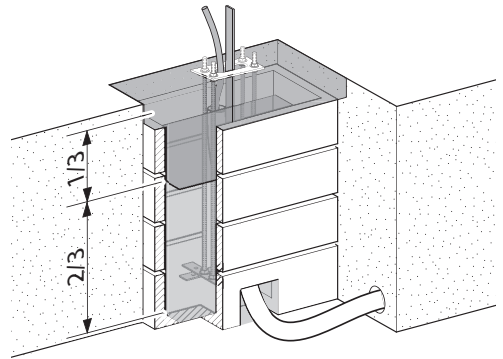


Fig. 3: Fill the foundation with concrete (example: AMEDIO®)

- ▶ Fill the bottom two thirds of the foundation with class C20/25 concrete.
- ▶ Allow the concrete to set.
- ▶ Fill the remaining third of the foundation with non-shrink concrete to ensure that the foundation plate / adapter plate / base plate is seated completely. Do not set the foundation plate / adapter plate / base plate in concrete.
- ▶ Allow the concrete to set.

Installation of the product on a self-made foundation

- ▶ Insert the supply line into the product together with the data line (if applicable) and the foundation earth electrode (if applicable).
- ▶ Place the product on the threaded rods of the foundation fixing set.
- ▶ Fasten the product to the threaded rods using the remaining nuts and washers (included in the scope of delivery of the foundation fixing set). Tightening torque: 32 Nm.

Specific requirements with stainless steel columns (for AMTRON® - part no. 18558 / 18566):

- ▶ Fasten the adapter plate to the foundation using the remaining nuts and washers (included in the scope of delivery of the foundation fixing set). Tightening torque: 32 Nm.
- ▶ Insert the supply line into the product together with the data line and the foundation earth electrode (if applicable).
- ▶ Place the product on the adapter plate.
- ▶ Fasten the product to the adapter plate using the screws and washers (included in the scope of the delivery of the adapter plate). Tightening torque: 38 Nm.

Specific requirements with stainless steel columns (for AMTRON® Twincharge - part no. 18632 / 18633):

- ▶ Insert the supply line into the product together with the data line and the foundation earth electrode (if applicable).
- ▶ Place the product on the base plate.
- ▶ Use the screws (hexagon head, M8) to fasten the product to the base plate. Tightening torque: 25 Nm.

2.1.3 Existing foundation

Inspecting the existing foundation and drilling holes



The operator is responsible for ensuring that the product is only installed on an existing foundation that has been inspected and approved by a qualified engineer. The screw connections must be suitable for the design of the existing foundation and must have the required strength as specified in the chapter "Overview of foundation solutions". If the required mechanical load-bearing capacity of the foundation and the screw connection is not guaranteed, this can lead to dangerous situations due to an exposed supply line.

📖 "4 Appendix" [15]

The matching foundation plate is required to install a charging column or an Hectronic HecPay payment terminal on an existing foundation. For charging columns and Hectronic HecPay payment terminals, the foundation plate forms a drip edge for rainwater and makes opening the product easier. The foundation plate is available as an accessory from MENNEKES.

The foundation plate or adapter plate is not needed to install the stainless steel column, the concrete column and the pedestal.



The following chapter provides an overview of the accessories required for each respective product:

📖 "4 Appendix" [15]



ATTENTION


Material damage due to corrosion

Drilling through the fixing holes of the foundation plate will damage the powder coating and can lead to the corrosion of the foundation plate.

- ▶ Only use the foundation plate as a template for marking the drill holes.
-
- ▶ Route the supply line through the foundation plate together with the data line and foundation earth electrode (if applicable).
 - ▶ Place the foundation plate on the foundation.
 - ▶ Correctly align the foundation plate.
 - ▶ Mark out the drill holes on the foundation.
 - ▶ Remove the foundation plate from the foundation.
 - ▶ Drill holes in the foundation. Select the diameter of the drill holes according to the required screw connections.


Specific requirements of the stainless steel column, concrete column and pedestal:

- ▶ Align and mark the drill holes on the foundation according to the respective dimensions.

 “3 Dimensions of the accessories” [▶ 9]

- ▶ Drill holes in the foundation. Select the diameter of the drill holes according to the required screw connections.

Installing the product on an existing foundation


- ▶ Place the foundation plate on the drill holes of the foundation (if applicable).
 - ▶ Insert the supply line into the product together with the data line (if applicable) and the foundation earth electrode (if applicable).
 - ▶ Place the product on the drill holes of the foundation.
 - ▶ Fasten the product and the foundation plate (if applicable) to the foundation using suitable screw connections.
-  Observe the manufacturer's manual for the screw connections.

2.1.4 Prefabricated foundation

The products can be installed directly on a prefabricated foundation from MENNEKES. No additional accessories are required here (exception: stainless steel column for AMTRON® - part no. 18558 / 18566) and there is no need for drilled holes / empty conduits. Prefabricated foundations are available as an accessory from MENNEKES.




The following chapter provides an overview of the accessories required for each respective product:

 “4 Appendix” [▶ 15]



Exception: Concrete column. The concrete column is not suitable for installation on the prefabricated foundation.

Installing the prefabricated foundation

-  Installation manual for the prefabricated foundation.

Installing the product on the prefabricated foundation

- ▶ Insert the supply line into the product together with the data line (if applicable) and the foundation earth electrode.
- ▶ Place the product on the drill holes of the prefabricated foundation.
- ▶ Fasten the product to the prefabricated foundation using the screws (included in the delivery contents of the prefabricated foundation). Tightening torque: 70 Nm.

Specific requirements with stainless steel columns (for AMTRON® - part no. 18558 / 18566):

To install stainless steel columns on the prefabricated foundation, the associated adapter plate is required. The adaptor plate is available as an accessory from MENNEKES.

- ▶ Place the adaptor plate on the drill holes of the prefabricated foundation.
- ▶ Fasten the adaptor plate to the prefabricated foundation using the screws (included in the delivery contents of the prefabricated foundation). Tightening torque: 70 Nm.
- ▶ Insert the supply line into the product together with the data line (if applicable) and the foundation earth electrode (if applicable).
- ▶ Place the product on the adaptor plate.
- ▶ Fasten the product to the adaptor plate using the screws and washers (included in the delivery contents of the adaptor plate). Tightening torque: 38 Nm.

Specific requirements with stainless steel columns (for AMTRON® Twincharge - part no. 18632 / 18633):

Before installing the foundation fixing set, the base plate must be loosened from the stainless steel columns (see instructions for stainless steel columns).

- ▶ Place the base plate on the drill holes of the prefabricated foundation.

- ▶ Fasten the base plate to the prefabricated foundation using the screws (included in the delivery contents of the prefabricated foundation). Tightening torque: 70 Nm.
- ▶ Insert the supply line into the product together with the data line and the foundation earth electrode (if applicable).
- ▶ Place the product on the base plate.
- ▶ Use the screws (hexagon head, M8) to fasten the product to the base plate. Tightening torque: 25 Nm.

2.1.5 Alternative foundation solutions

Some companies sell alternative foundation solutions which can be used with MENNEKES charging stations. All the necessary information is available from MENNEKES upon request.

To contact MENNEKES directly, please use the form on our website under “Contact”.

 “1.1 Website” [▶ 2]

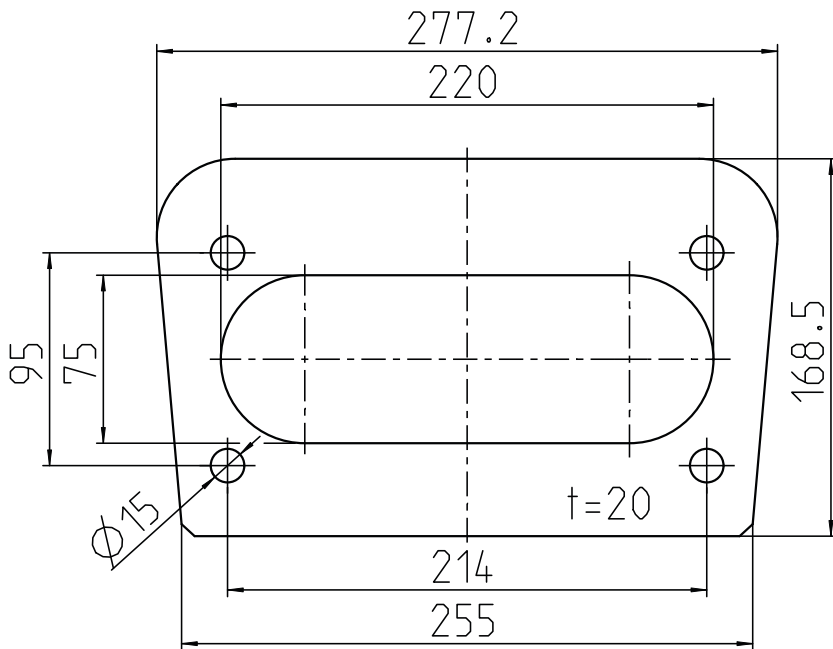
2.1.6 Concluding tasks



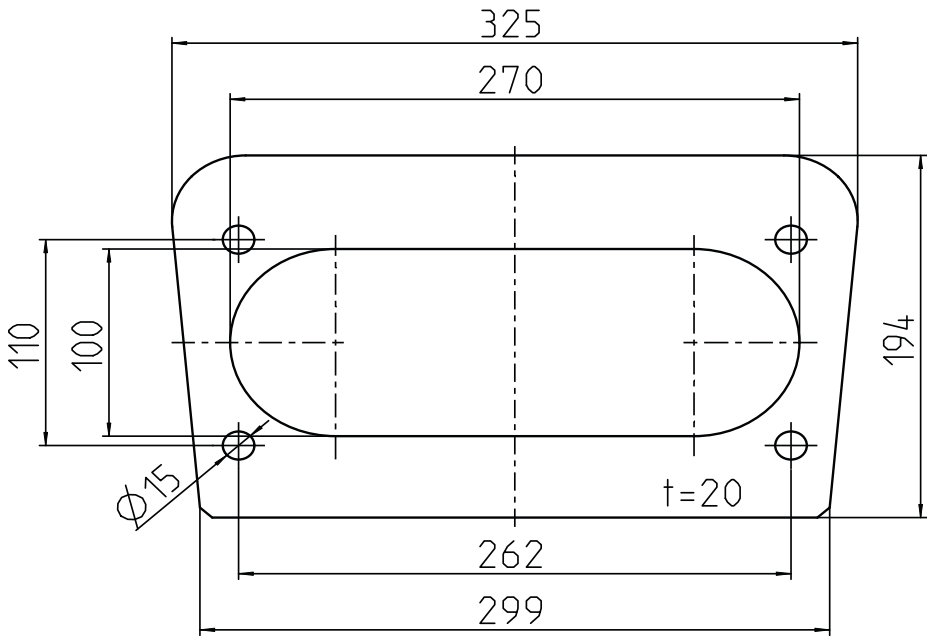
MENNEKES recommends protecting the product with curbs or bollards provided by the customer.

3 Dimensions of the accessories

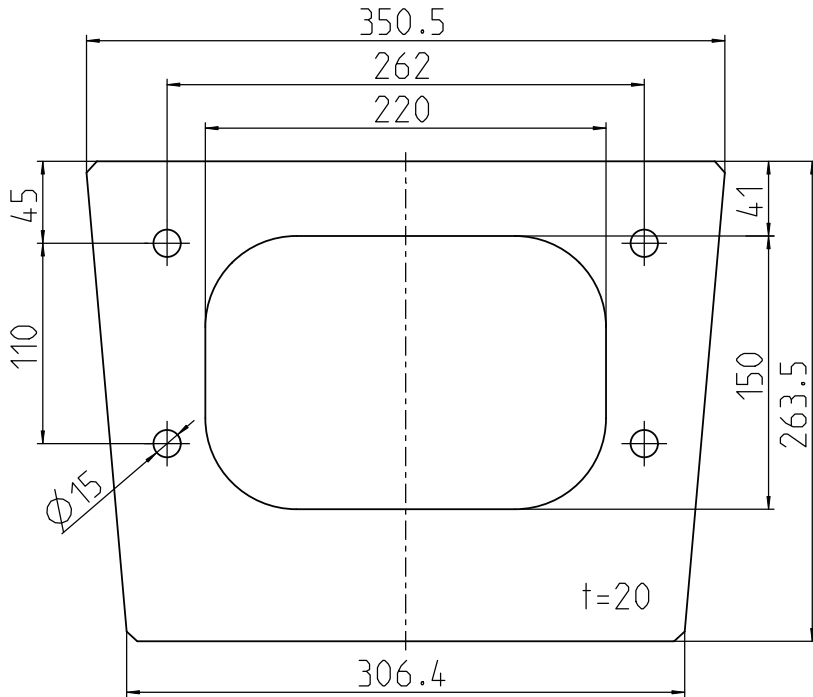
Dimensions of foundation plate 18514 (charging column Basic, Premium and Smart (S))



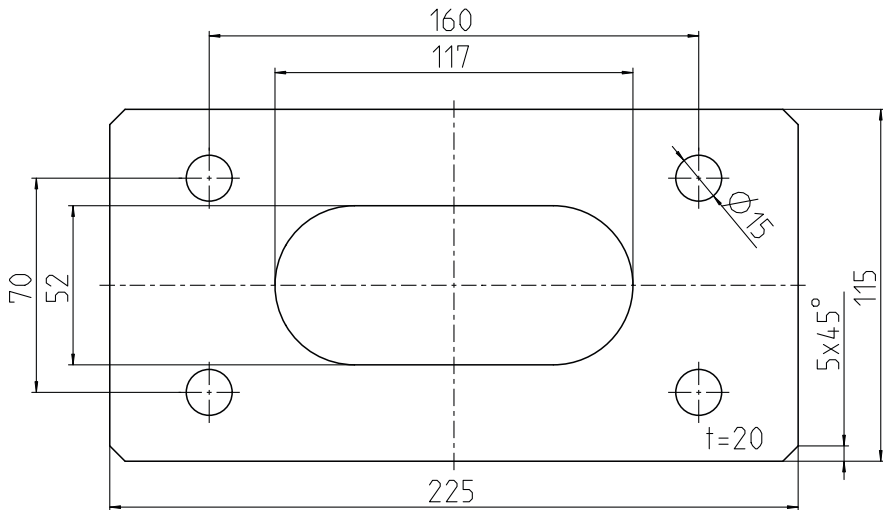
Dimensions of foundation plate 18515 (charging column Smart N / SN)



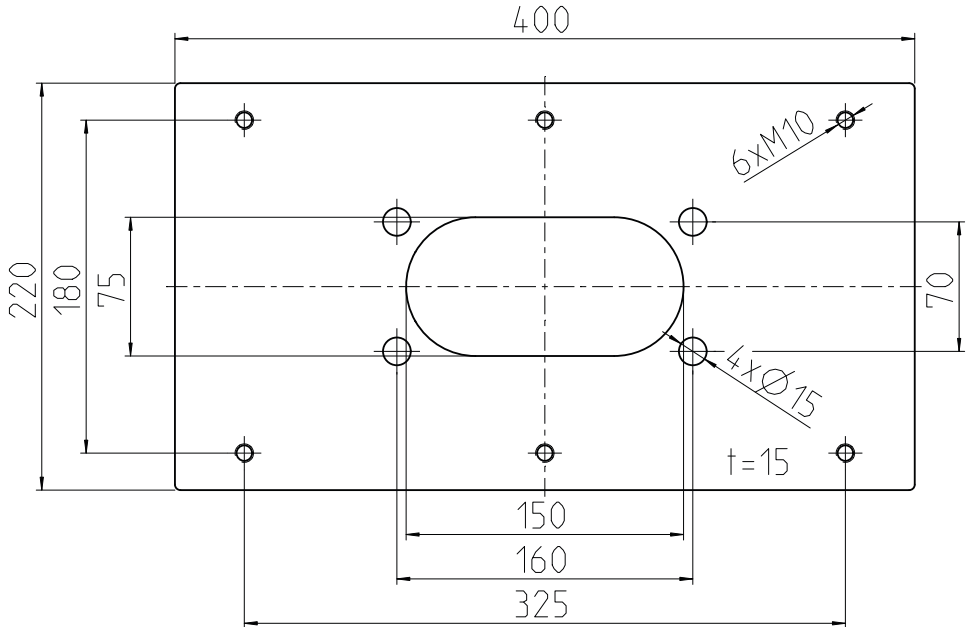
Dimensions of foundation plate 18567 (charging column Smart T / ST / T PnC (NFC))



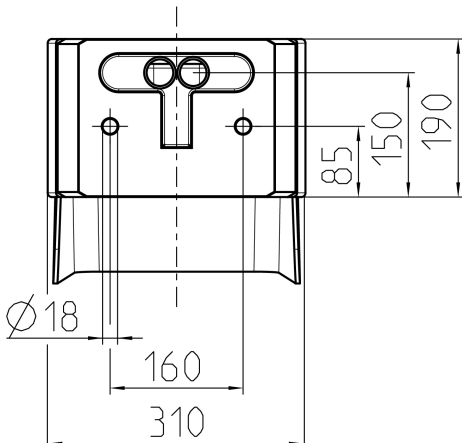
Dimensions of foundation plate 18590 (AMEDIO® charging column, Hectronic HecPay, pedestal (all product variants))



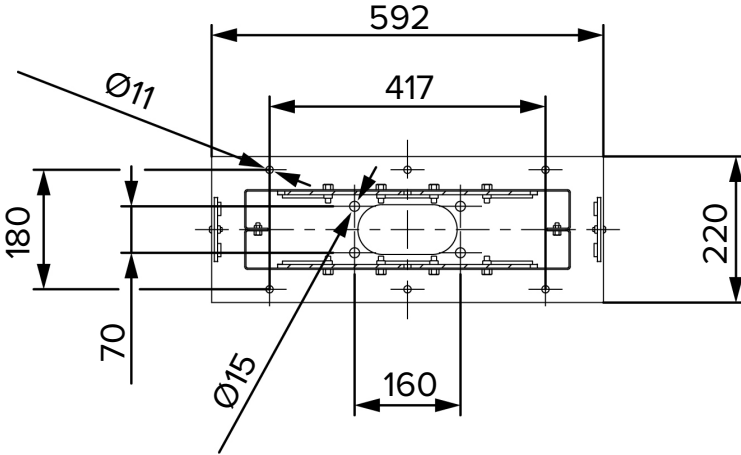
Dimensions of adapter plate 18591 (stainless steel column for AMTRON® - part no. 18558 / 18566)



Dimensions of the concrete column - view from below






Dimensions of the base plate of the stainless steel column for AMTRON® Twincharge - part no. 18632 / 18633



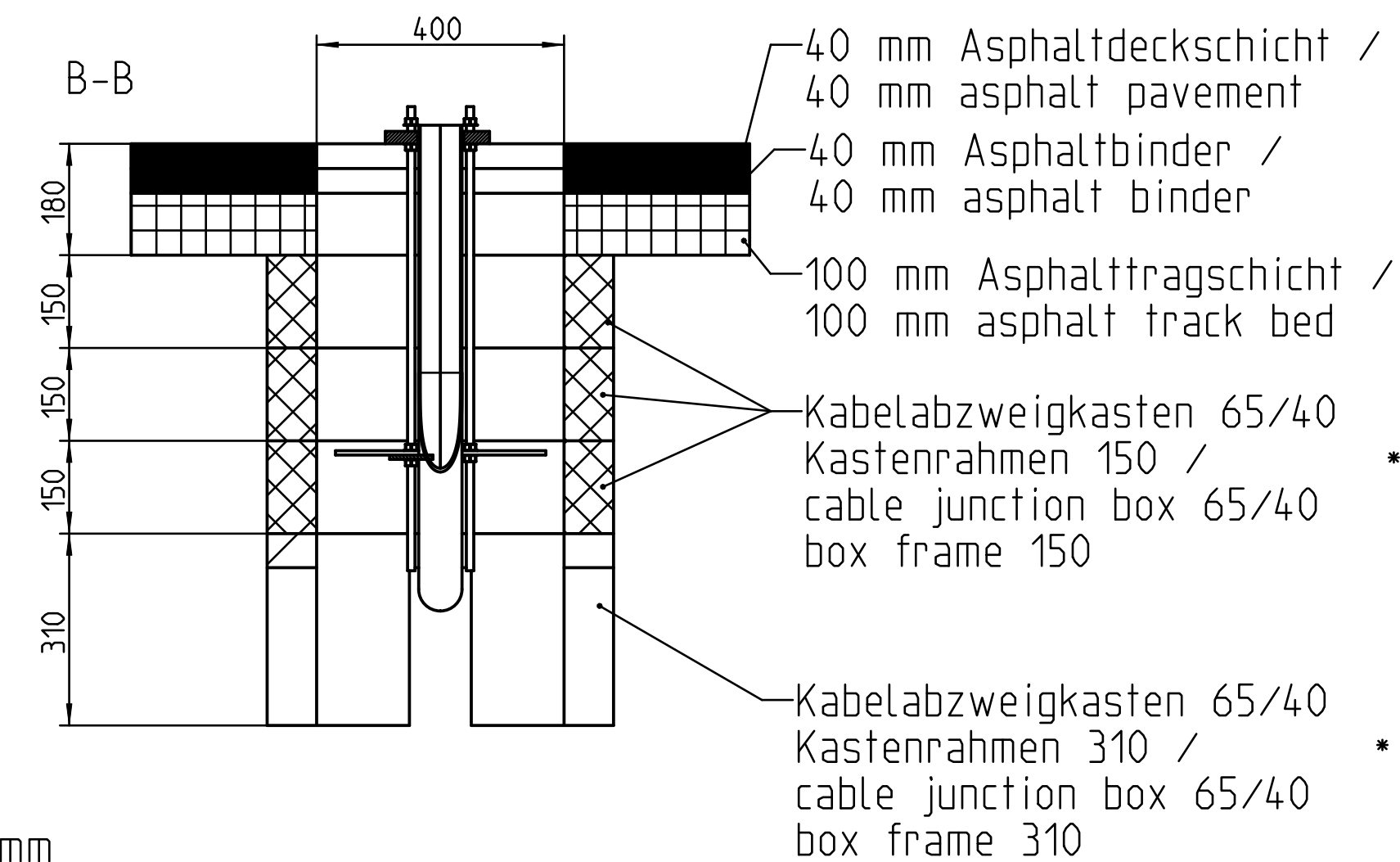
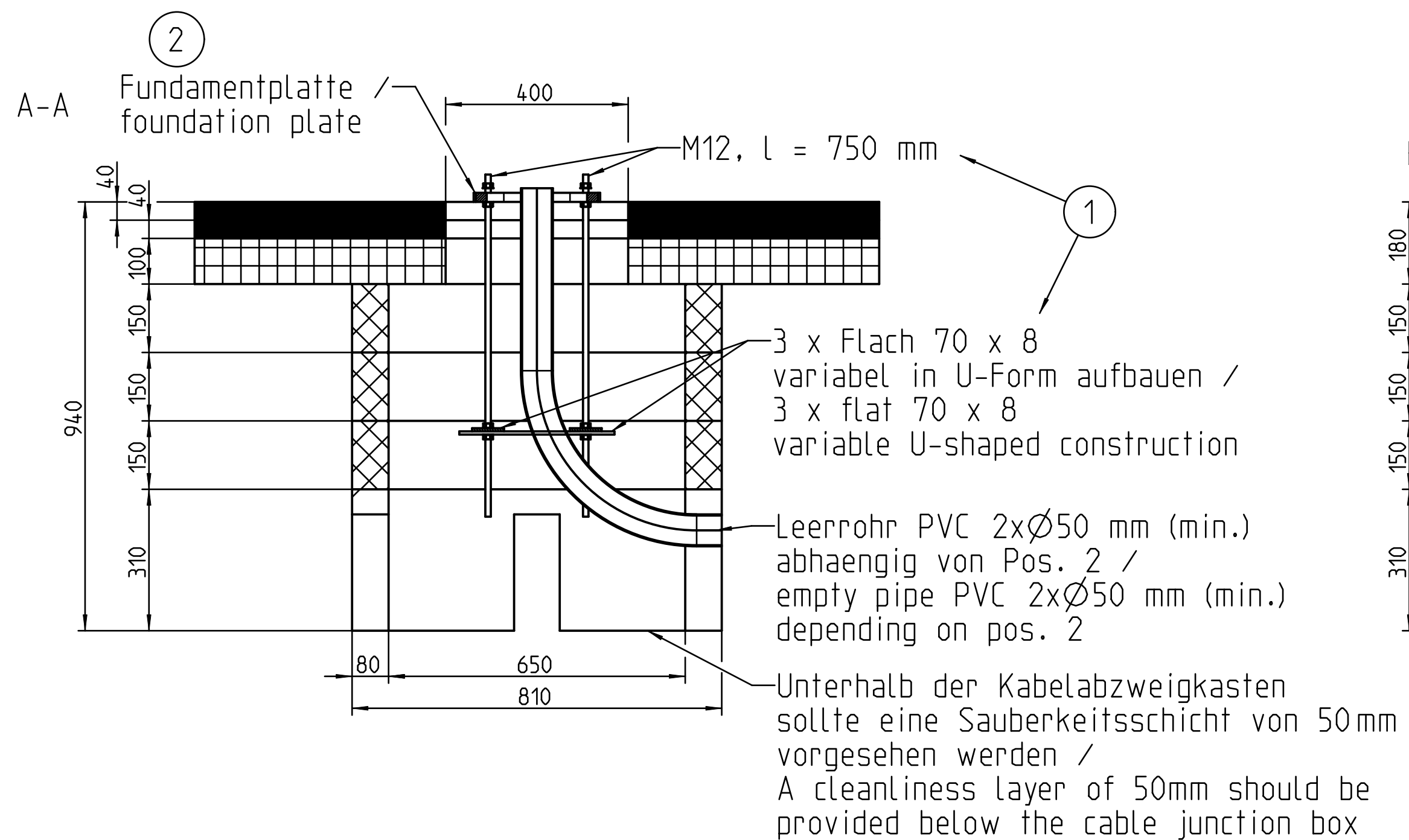
- Use of 4 drill holes (spacing 160°/70°mm) with the foundation fixing set and the prefabricated foundation.
- Use of 6 drill holes (spacing 417 / 180 mm) with an existing foundation.

4 Appendix

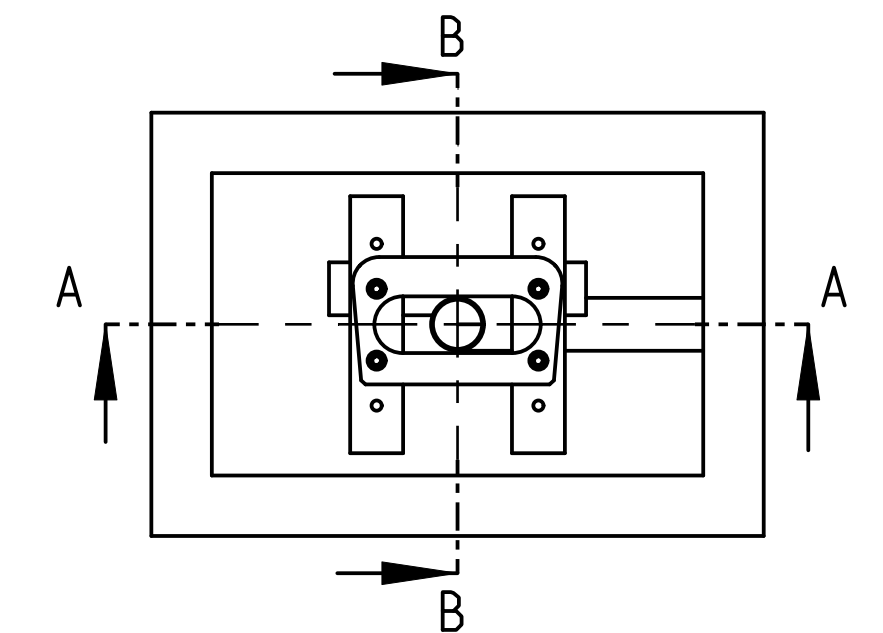
See also

-  [Overview of foundation solutions \[▶ 16\]](#)
-  [Drawing 1024389 \[▶ 17\]](#)
-  [Drawing 1112296 \[▶ 18\]](#)

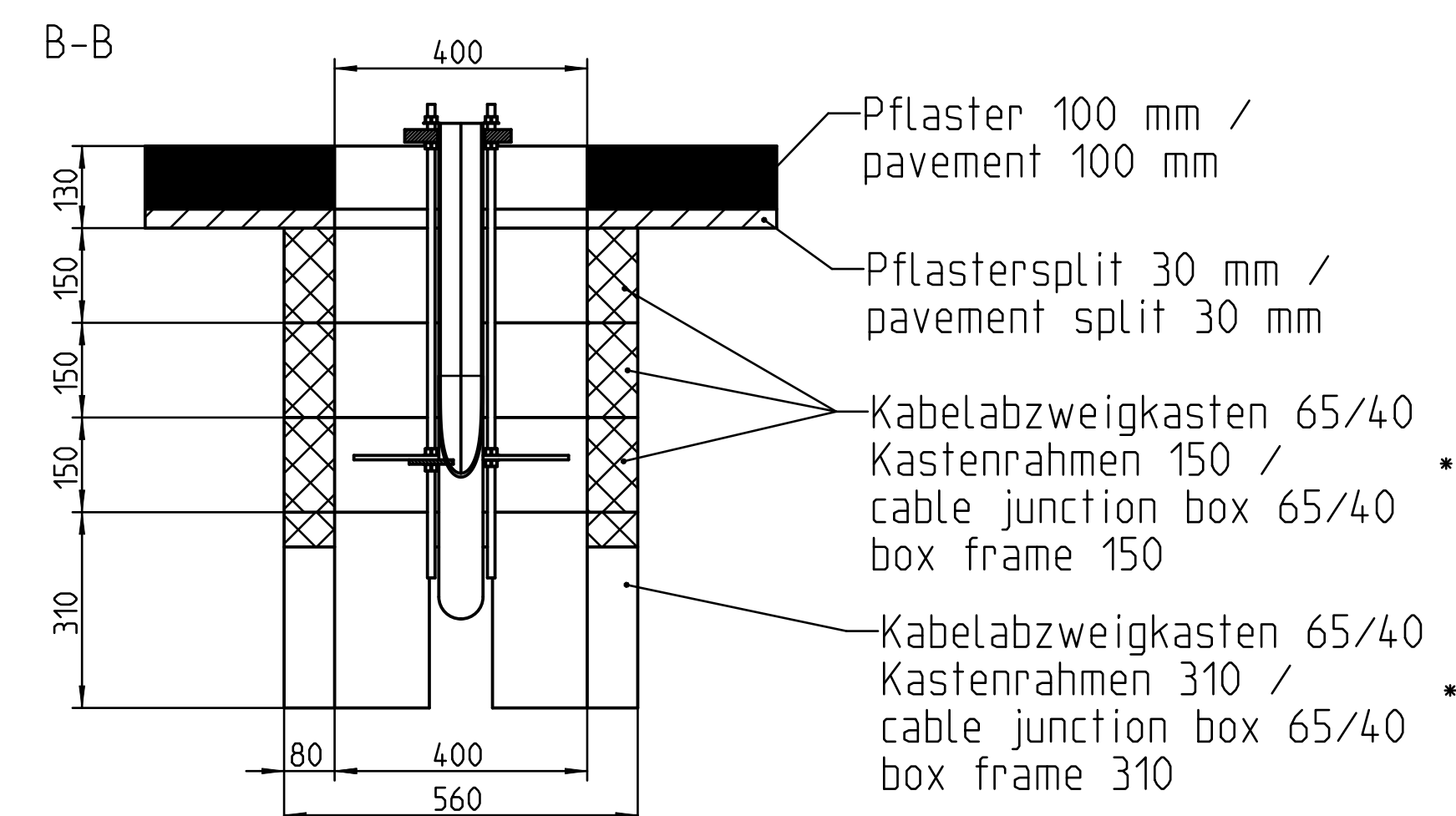
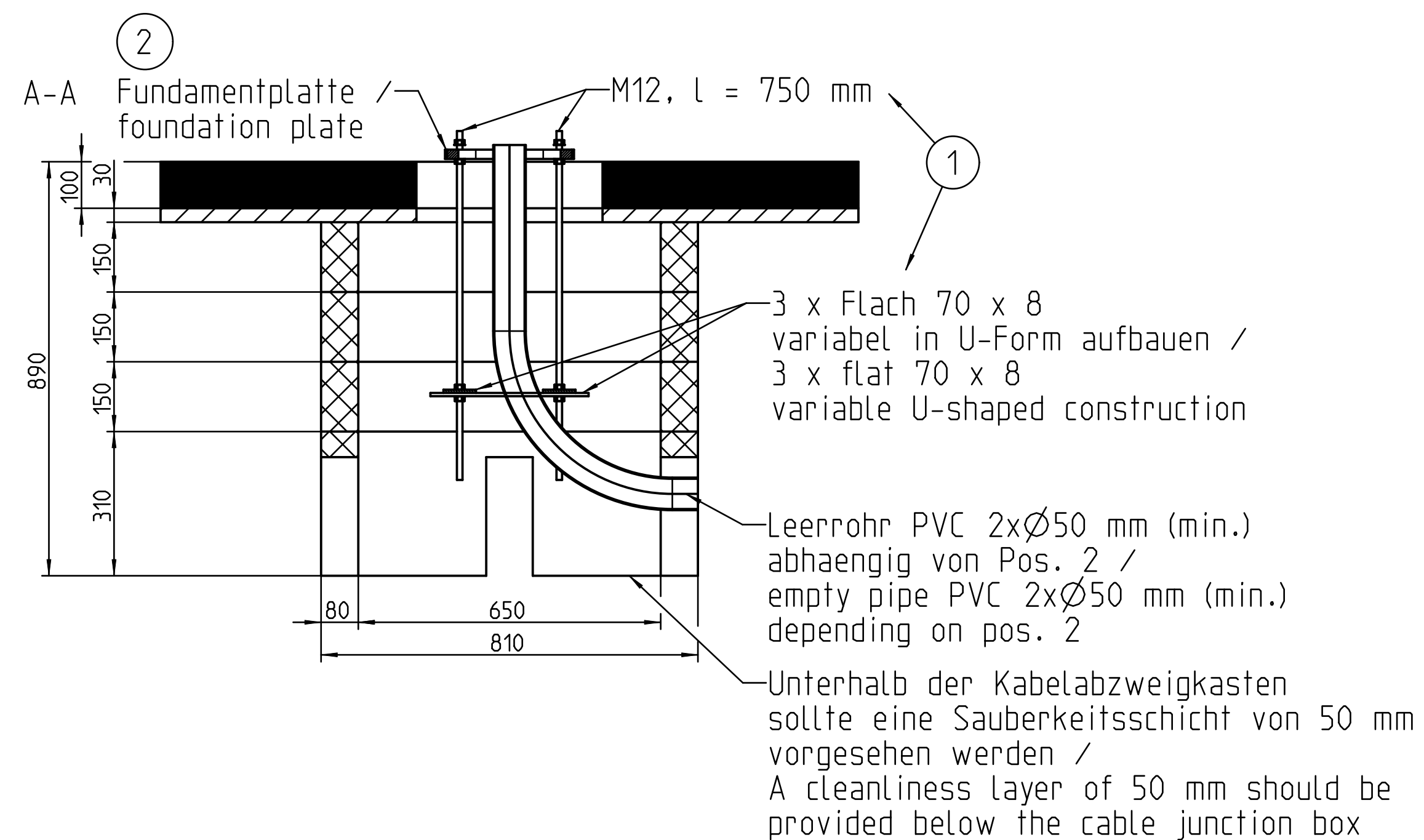
Beispiel Asphaltdeckschicht
example asphalt pavement



Pos.-Nr.	Bestell-Nr. / order number	Bezeichnung / Designation
2	18514	Fundamentplatte Basic, Premium, Smart / Foundation plate Basic, Premium, Smart
	18515	Fundamentplatte Smart (S)N / Foundation plate Smart (S)N
	18590	Fundamentplatte AMEDIO, Standfuß / Foundation plate AMEDIO, stainless steel pole
	18591	Adapterplatte Edelstahlsaeule / Stainless Steel column adapter plate
1	18516	Fundament-Befestigungs-Set Basic, Premium, Smart / Foundation fixing set Basic, Premium, Smart
	18517	Fundament-Befestigungs-Set AMEDIO, Standfuß, Edelstahlsaeule, Smart (S)N, (S)T Foundation fixing set AMEDIO, stainless steel pole, Stainless Steel column, Smart (S)N, (S)T



Beispiel Pflasterdecke
example pavement

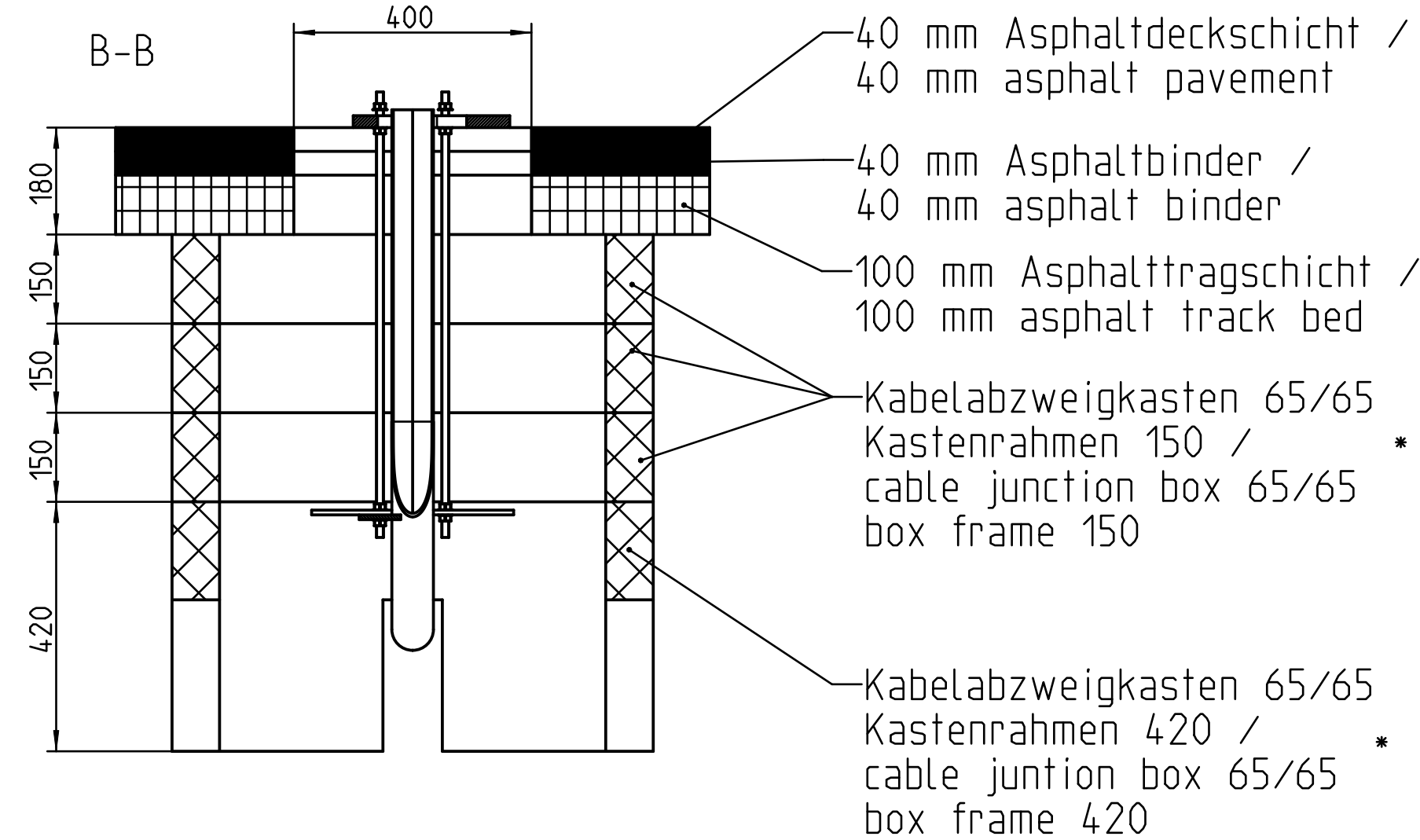
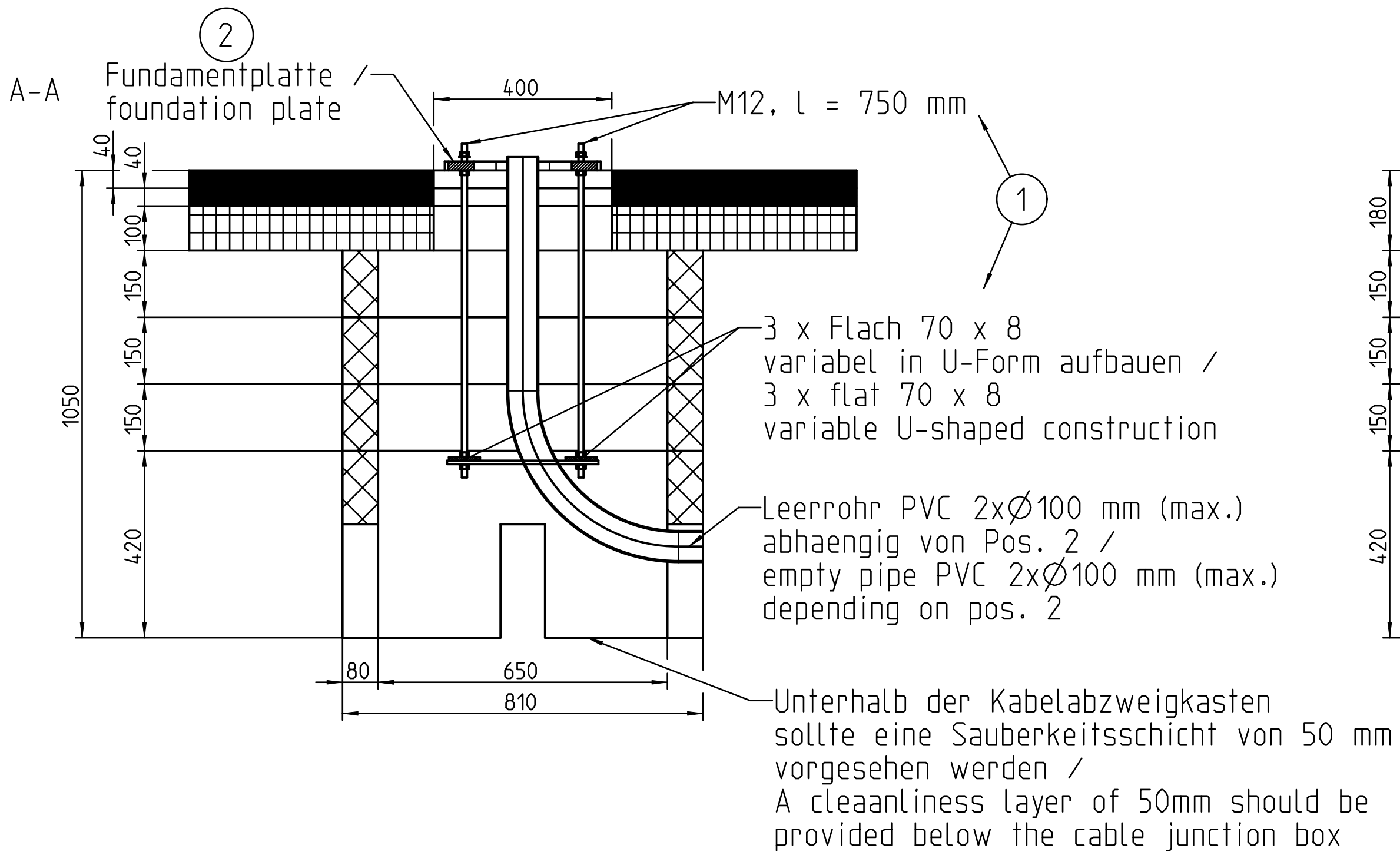


* Mindestgröße
Maße Herstellerabhängig
* Minimum size
Dimensions Manufacturer-dependent

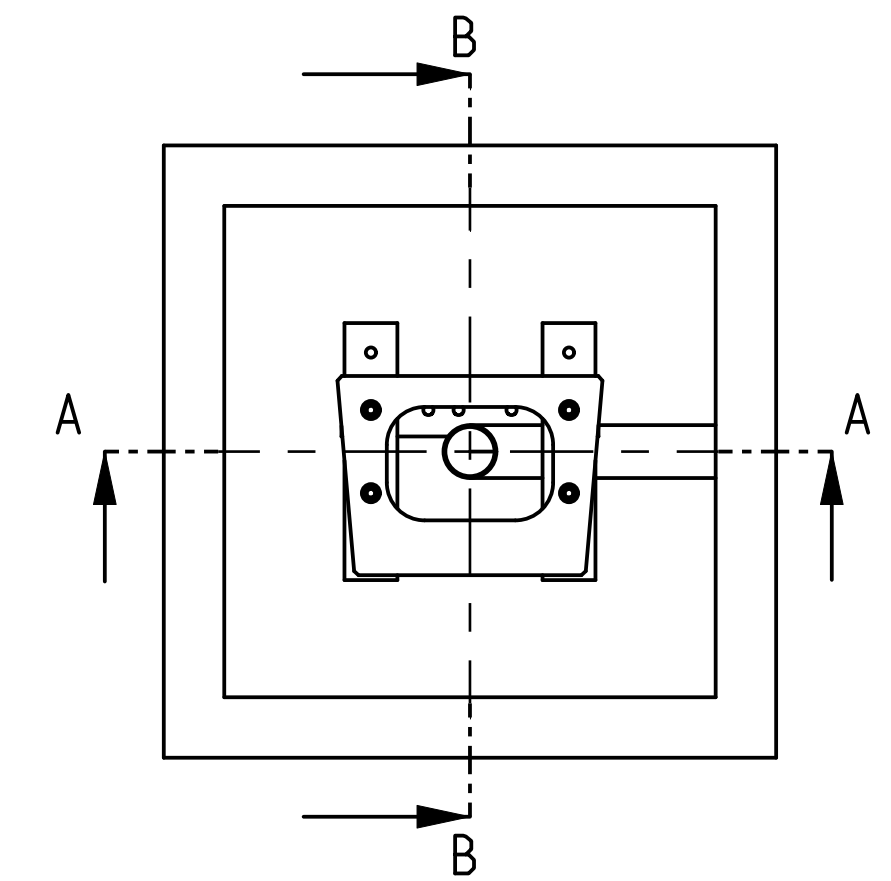
Zeichnung 1112296 - Selbst hergestelltes Fundament für Ladesäulen Smart (T, ST, T PnC (NFC))

Drawing 1112296 - Self-fabricated foundation for charging columns (T, ST, T PnC (NFC))

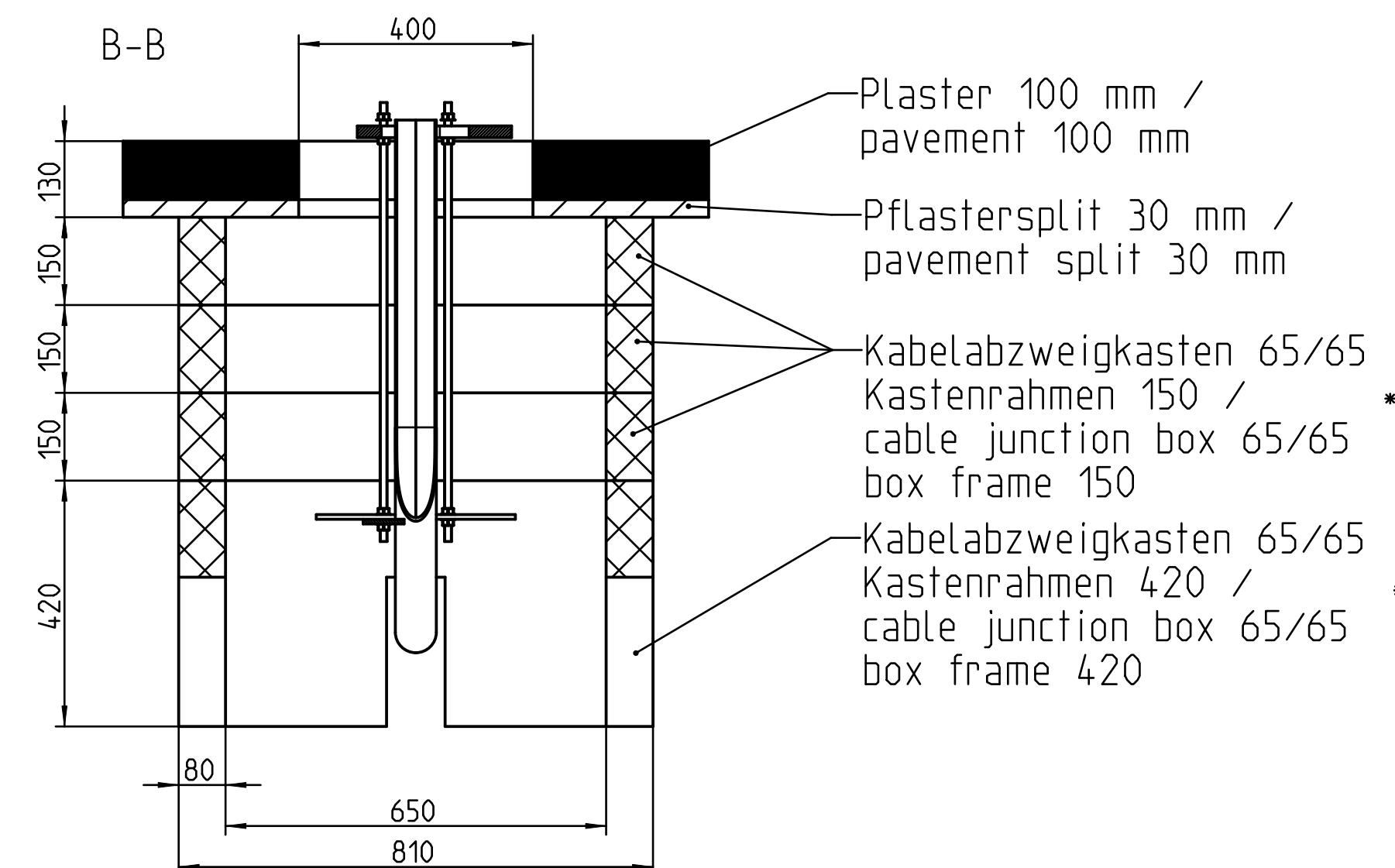
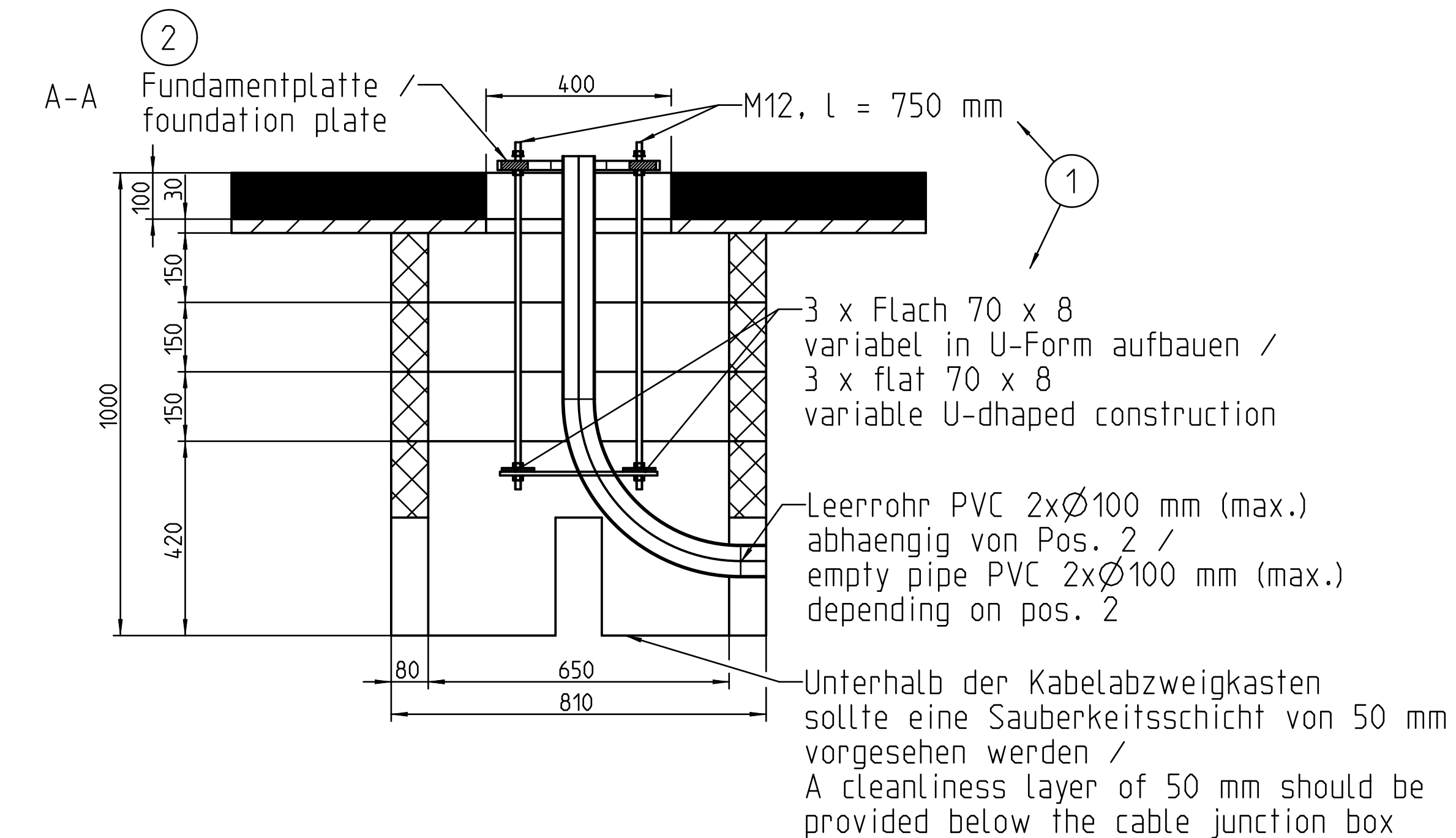
Beispiel Asphaltdeckschicht
example asphalt pavement



Pos.-Nr.	Bestell-Nr. / order number	Bezeichnung / Designation	Zeichnung / drawing
2	18567	Fundamentplatte Smart T, Smart ST / Foundation plate Smart T, Smart ST Fundamentplatte Smart T PnC (NFC) ③ Foundation plate Smart T PnC (NFC)	1109605
1	18517	Fundament-Befestigungs-Set AMED10, Standfuß, Edelstahlsäule, Smart (S)N, (S)T / Foundation fixing set AMED10, stainless steel pole, Stainless Steel column, Smart (S)N, (S)T Fundament-Befestigungs-Set AMED10, Standfuß ③ Edelstahlsäule, Smart T PnC (NFC) Foundation fixing set AMED10, stainless steel pole, Stainless Steel column, Smart T PnC (NFC)	1025186



Beispiel Pflasterdecke
example pavement



* Mindestgröße
Maße Herstellerabhängig
* Minimum size
Dimensions Manufacturer-dependent

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