

Approval body for construction products
and types of construction

Bautechnisches Prüfamnt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-14/0159
of 22 July 2014

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Trade name of the construction product

Product family
to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment
contains

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

Deutsches Institut für Bautechnik

"wall penetration sealing system DS 90, 74 mm, "wall
penetration sealing system DS 90, 120 mm, "ceiling
penetration sealing system DS 90, 74 mm" and "ceiling
penetration sealing system DS 90,120 mm"

Products for use in cable penetration seals

KAISER GMBH & CO. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

KAISER GmbH & Co. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

13 pages including 9 annexes which form an integral part
of this assessment

Guideline for European technical approval of "Fire
Stopping and Fire Sealing Products", ETAG 026 Part 2:
"Penetration Seals",
used as European Assessment Document (EAD)
according to Article 66 Paragraph 3 of Regulation (EU)
No 305/2011.

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Specific Part

1 Technical description of the product

The products "wall penetration sealing system DS 90, 74 mm", "wall penetration sealing system DS 90, 120 mm", "ceiling penetration sealing system DS 90, 74 mm" and "ceiling penetration sealing system DS 90" consist of a prefabricated moulding part of an intumescent material, a plastic cap and in cases of floor installation a mounting sleeve.

Detailed specifications for identification and fire safety relevant performance criteria of the construction products are given in Annex 1.

NOTE:

The characteristics listed can serve both for the identification of the construction product as well as for the implementation of the manufacturer's factory production control.

2 Specification of the intended use in accordance with the applicable European Assessment Document

Within the scope of this ETA the resistance to fire was assessed for cable penetration seals, which consisted of two "wall penetration sealing system DS 90,..." (for wall installations) or one "ceiling penetration sealing system DS 90, ..." (for floor installations). Cable penetration seals are used to seal off openings in fire resistant walls and floors which are penetrated by cables to preserve the walls' or floors' resistant to fire. Detailed information and data on the verified penetration seals are given in Annexes 6 to 9. The performance mentioned in clause 3 exclusively relates to these penetration seals (for example the construction and arrangement of the penetration seal components and as well as the type and position of the cables).

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of working life of at least 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right product in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Intended use: use in penetration seals

all construction products pursuant to clause 1		
BWR	Essential characteristics	Performance
2	reaction to fire	see Annex 1
	resistance to fire of a penetration seal incorporating the product ^{1,2} (for details see Annexes 6 to 9)	Class EI 90 in accordance with EN 13501-2
3	release of dangerous substances	no dangerous substances ³

¹ The fire resistance depends on the construction and the installation of the penetration seal. Details on the penetration seals for which the indicated resistance to fire has been verified are given in Annexes 6 to 9.

² Technical provisions of the Member States relating to the execution of electrical cable systems and the admissibility of cable penetrations remain unaffected.

³ According to the manufacturer's indications and the chemical composition deposited with DIBt

3.2 General aspects

The verification of durability is part of testing the essential characteristics. During end-use applications, the moulded part made of the intumescent material may be exposed to the conditions pursuant to use category Z2 (dry indoor application) without expecting significant changes in the characteristics relevant for fire protection.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to Commission Decision of 22 June 1999 (1999/454/EC) (OJ L 178 of 14 July 1999, p. 42), as amended by Commission Decision of 8 January 2001 (2001/596/EG) (OJ L 209 of 2 August 2001, p. 33), the system of assessment and verification of constancy of performance (see Annex V in conjunction with Article 65 Paragraph 2 of Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use(s)	Level or class (<i>resistance to fire</i>)	System
all construction products pursuant to clause 1	use in penetration seals; fire compartmentation	any	1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

Issued in Berlin on 22 July 2014 by Deutsches Institut für Bautechnik

Prof. Gunther Hoppe
Head of Department

beglaubigt:
Meske-Dallal

Description of the construction products

- 1) The product "**wall penetration sealing system DS 90, 74 mm**" consists of a prefabricated two-piece moulded part made of an intumescent material ("DS 90"), of a hinged moulded part made of plastic (sealing cover), which is placed on the above-mentioned moulded part, and of a two-part foam plug (sealing insert) inserted into the sealing cover.
- 2) The product "**ceiling penetration sealing system DS 90, 120 mm**" consists of a prefabricated two-piece moulded part made of an intumescent material (slat inlay), of a two-piece moulded part made of plastic, in which the slat inlay is used (wall-mount), of a hinged moulded part made of plastic (sealing cover), which is placed on the above-mentioned moulded part, and of a two-part foam plug (sealing insert) inserted into the sealing cover.
- 3) The product "**wall penetration sealing system DS 90, 74 mm**" consists of the components pursuant to 1), a sheet metal, a two-piece mounting sleeve and a two-part insert (intumescent edge protection) made of an intumescent material, which is inserted into the mounting sleeve.
- 4) The product "**ceiling penetration sealing system DS 90, 120 mm**" consists of the components pursuant to 2), a sheet metal, a two-piece mounting sleeve and a two-part insert (intumescent edge protection) made of an intumescent material, which is inserted into the mounting sleeve.

Properties and Performance of components of the construction product

Component	Description
"slat inlay"	Dimensions: as given in Annexes 3 and 5 Material: intumescent material "X1"* Reaction to fire class in accordance with EN 13501-1: Class E
"DS 90"	Dimensions: as given in Annexes 2 and 4 Material: intumescent material "X2"* Reaction to fire class in accordance with EN 13501-1: Class E
"Wall or floor mount"	Dimensions: as given in Annexes 3 and 5 Material: ISO 1874-PA6-MF-14-040,X Reaction to fire class in accordance with EN 13501-1: Class E
"sealing cover"	Dimensions: as given in Annexes 2 to 5 Material: ISO 1874-PA6-MF-14-040,X Reaction to fire class in accordance with EN 13501-1: Class E
"sealing insert"	Dimensions: as given in Annexes 2 to 5 Material: PUR-Foam in accordance with EN 13165 a) gray, density 9 kg/m ³ , Reaction to fire class in accordance with EN 13501-1: Class C or b) anthracite, density 90 kg/m ³ , Reaction to fire class in accordance with EN 13501-1: Class E
"mounting sleeve"	Dimensions: as given in Annexes 4 and 5 Material sleeve: steel wire DC01 in accordance with DIN 10130 with "KTL coating" Reaction to fire class in accordance with EN 13501-1: Class A
"intumescent edge protection"	Dimensions: as given in Annexes 4 and 5 Material: intumescent material "X3"* Reaction to fire class in accordance with EN 13501-1: Class E

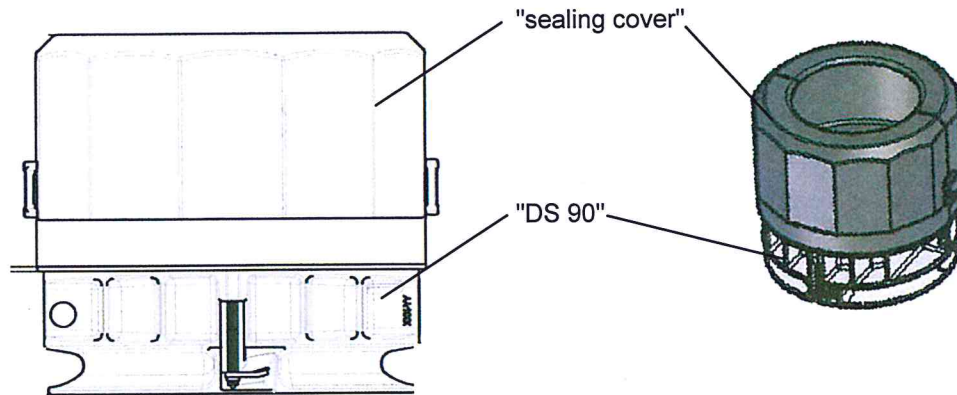
* The material specifications and performance are deposited with the Deutsches Institut für Bautechnik.

"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Description of the construction product, properties and performance

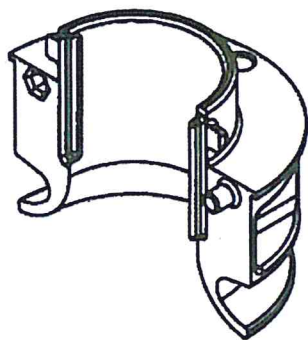
Annex 1

"wall penetration sealing system DS 90, 74 mm"

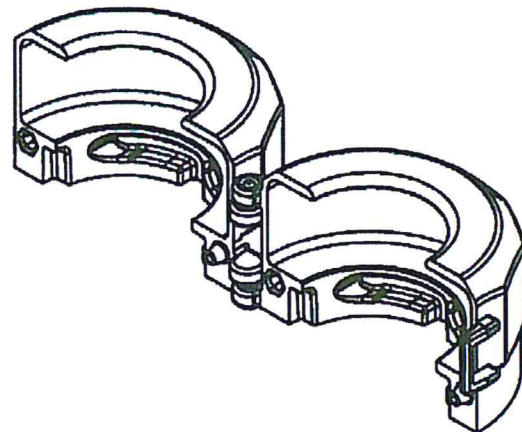


Components

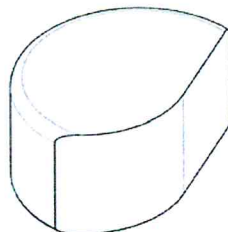
"DS 90", half shell



"sealing cover", half-shells held together with a hinge



"sealing insert", half cylinder

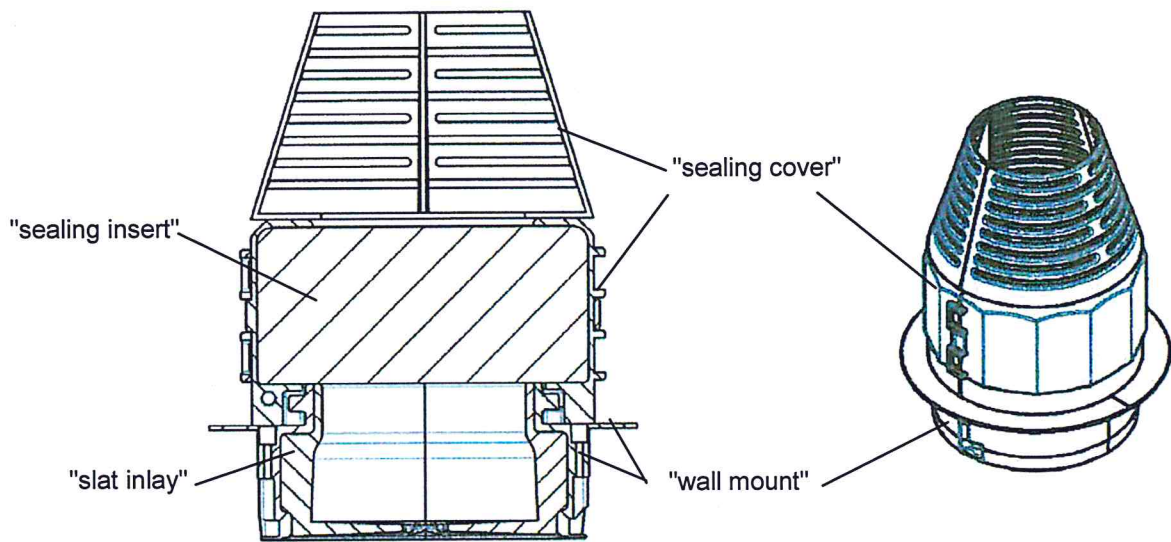


"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
 und "Deckenschott DS90, 120 mm"

Description of the construction product
 "wall penetration sealing system DS 90, 74 mm"

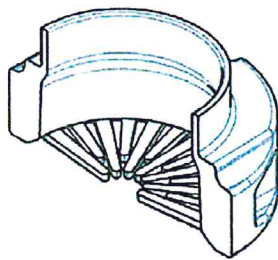
Annex 2

"wall penetration sealing system DS 90, 120 mm"

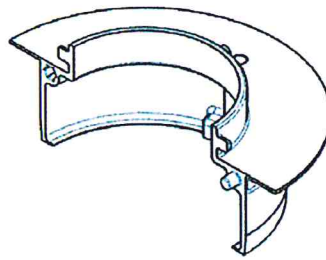


Components

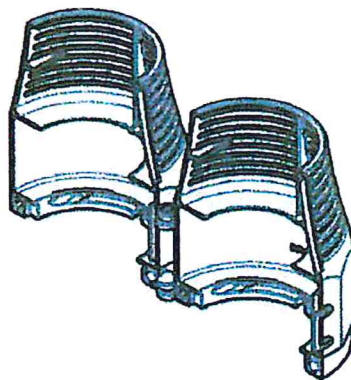
"slat inlay", half shell



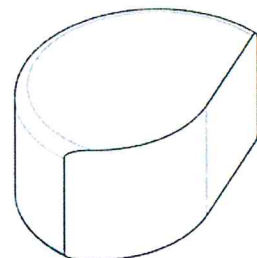
"wall mount", half shell



"sealing cover", half shells held together with a hinge



"sealing insert", half cylinder

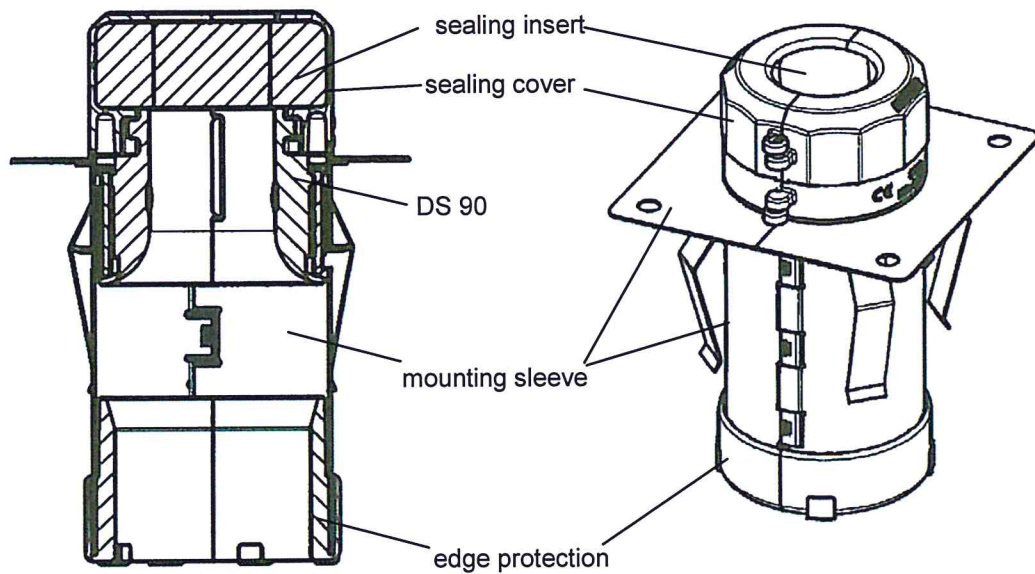


"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Description of the construction product
"wall penetration sealing system DS 90, 120 mm"

Annex 3

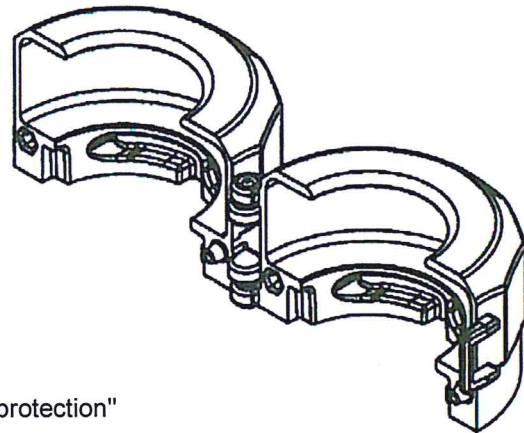
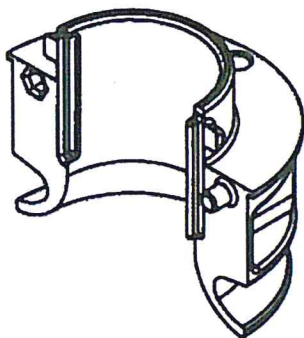
"ceiling penetration sealing system DS 90, 74 mm"



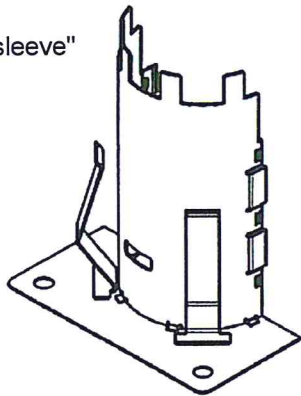
Components

"sealing cover", half shells held together with a hinge

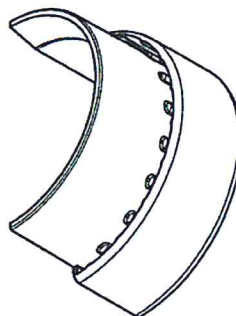
"DS 90"



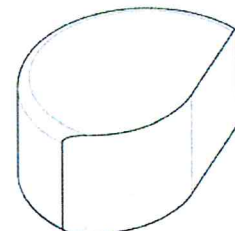
"mounting sleeve"



"edge protection"



"sealing insert", half cylinder

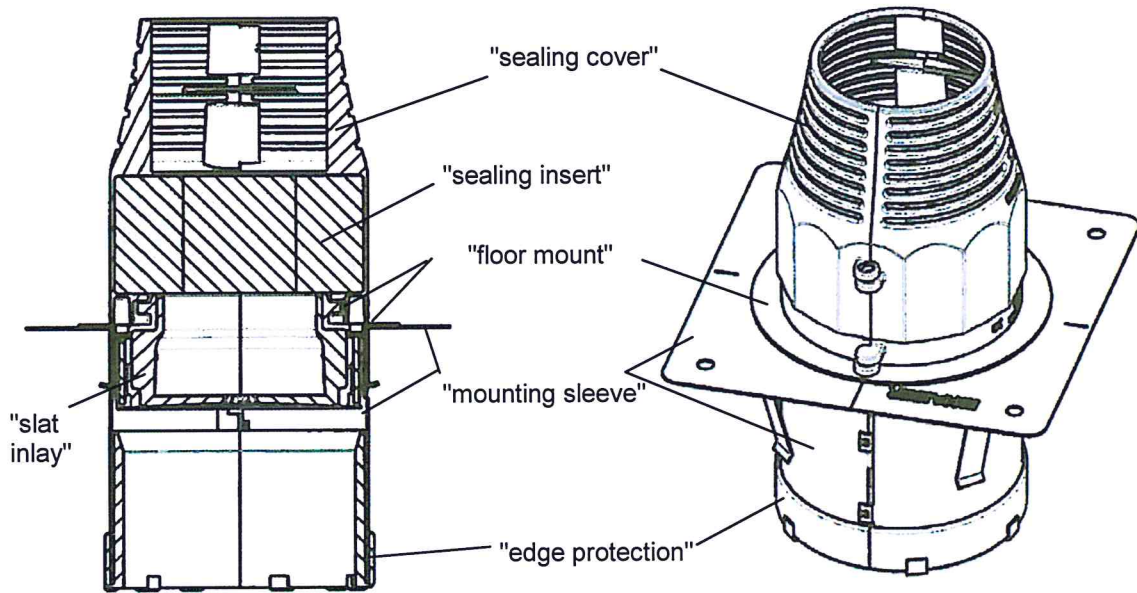


"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Description of the construction product
"ceiling penetration sealing system DS 90, 74 mm"

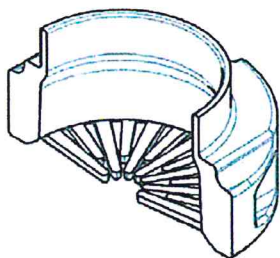
Annex 4

"ceiling penetration sealing system DS 90, 120 mm"

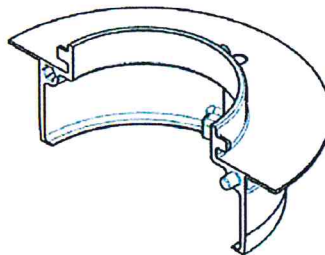


Components

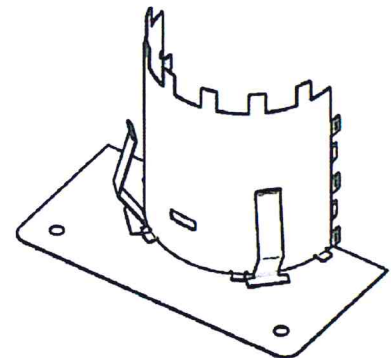
"slat inlay", half-shell



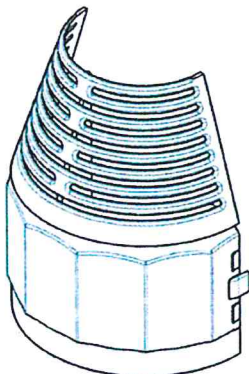
"floor mount", half shell



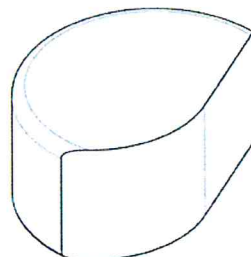
"mounting sleeve"



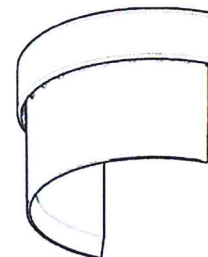
"sealing cover", half shell



"sealing insert", half shell



"edge protection"



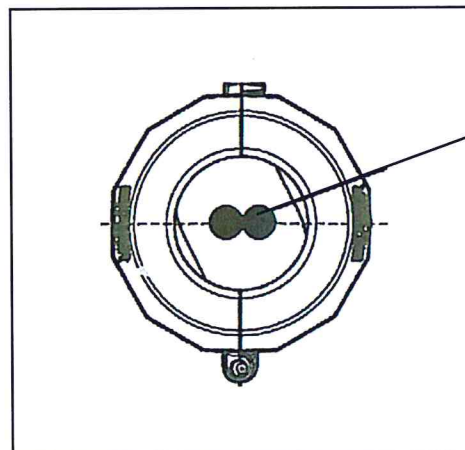
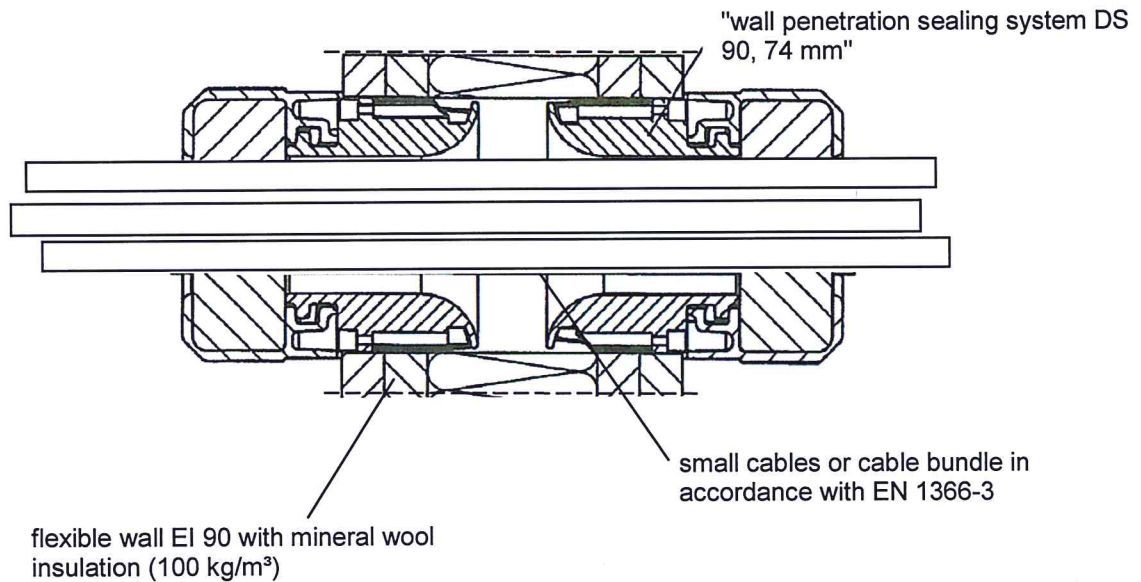
"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm" und "Deckenschott DS90, 120 mm"

Description of the construction product
"ceiling penetration sealing system DS 90, 120"

Annex 5

"wall penetration sealing system DS 90, 74 mm"

Mounting in rigid or flexible walls, resistance to fire class EI 90



Dimensions in mm

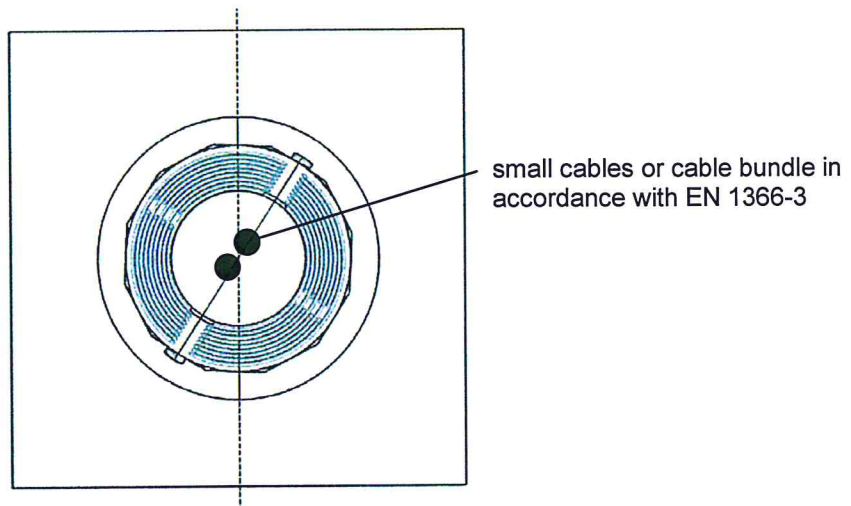
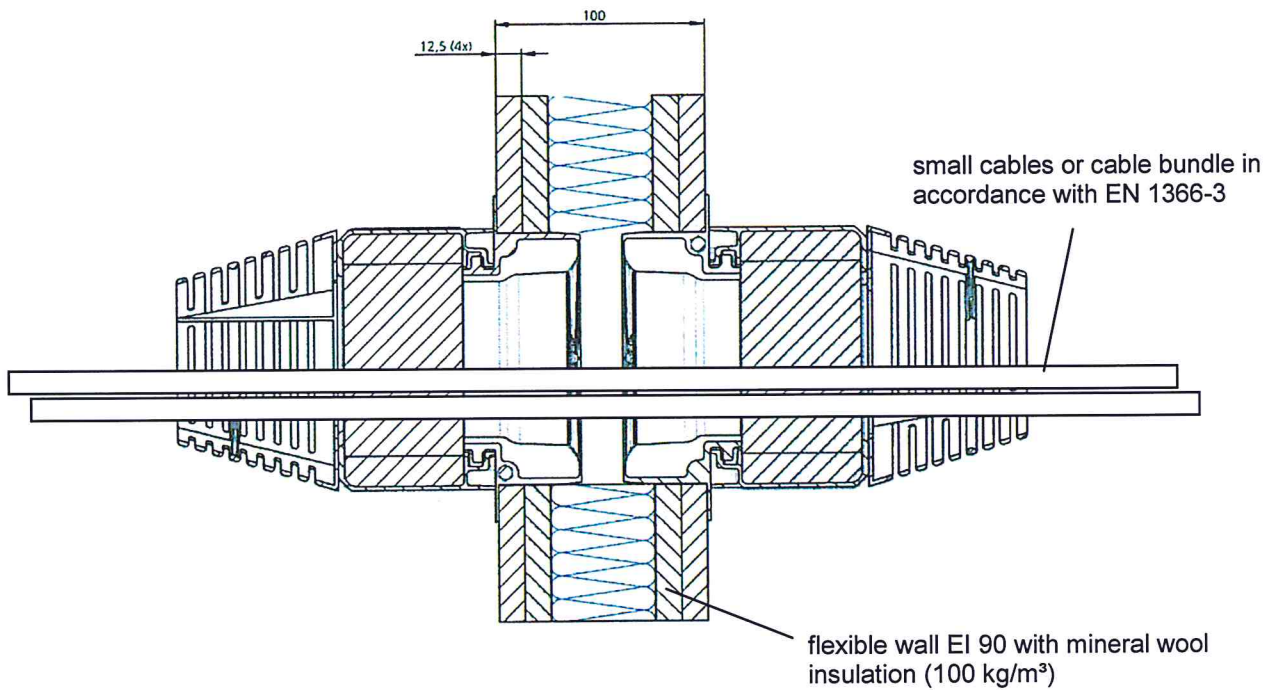
"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Example of cable penetration seal, resistance to fire class EI 90,
by using "wall penetration sealing system DS 90, 74 mm "

Annex 6

"wall penetration sealing system DS 90, 120 mm"

Mounting in rigid or flexible walls, resistance to fire class EI 90



Dimensions in mm

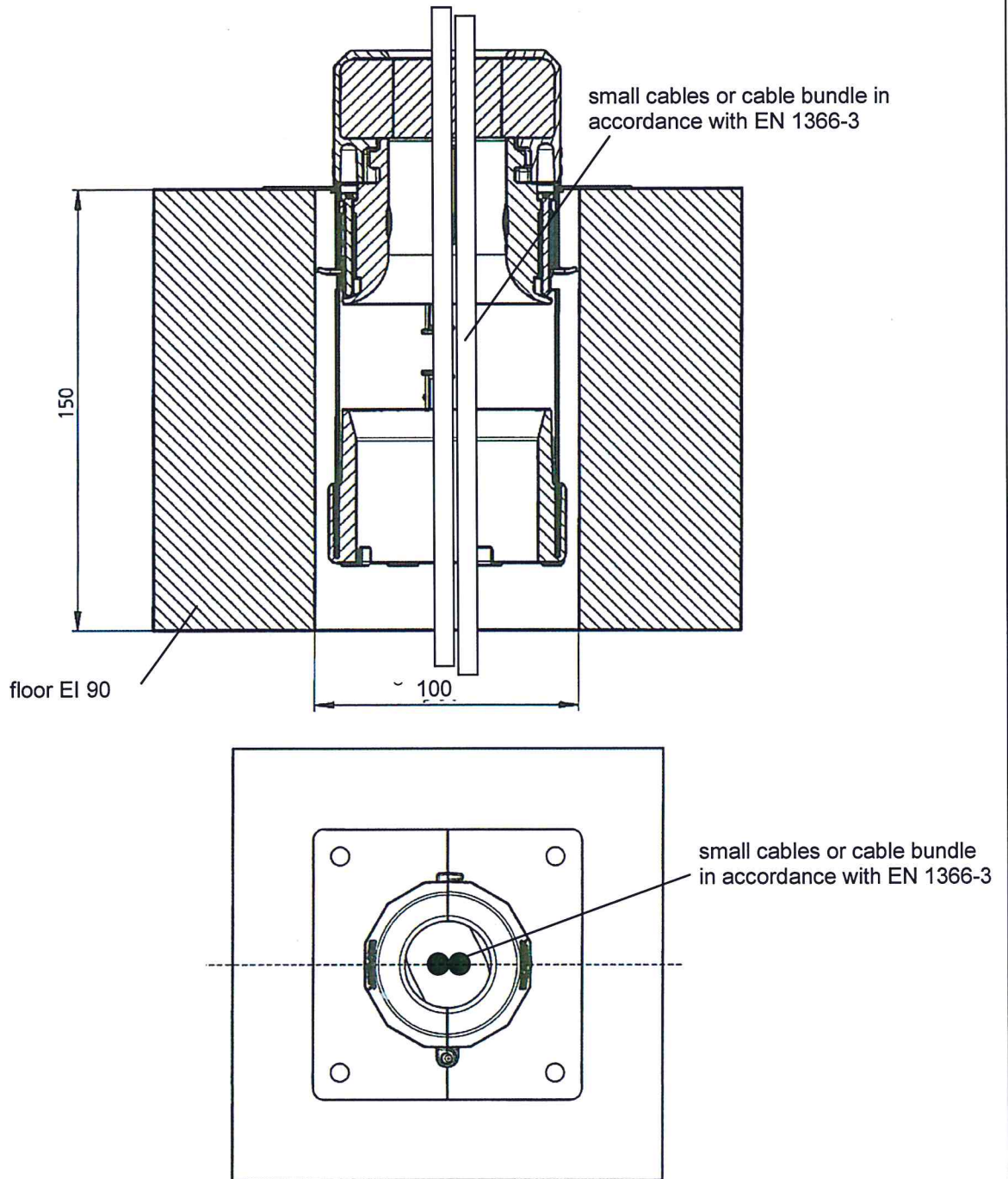
"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Example of cable penetration seal, resistance to fire class EI 90,
by using " wall penetration sealing system DS 90, 120 mm"

Annex 7

"ceiling penetration sealing system DS 90, 74 mm"

Mounting in floors, resistance to fire class EI 90



Dimensions in mm

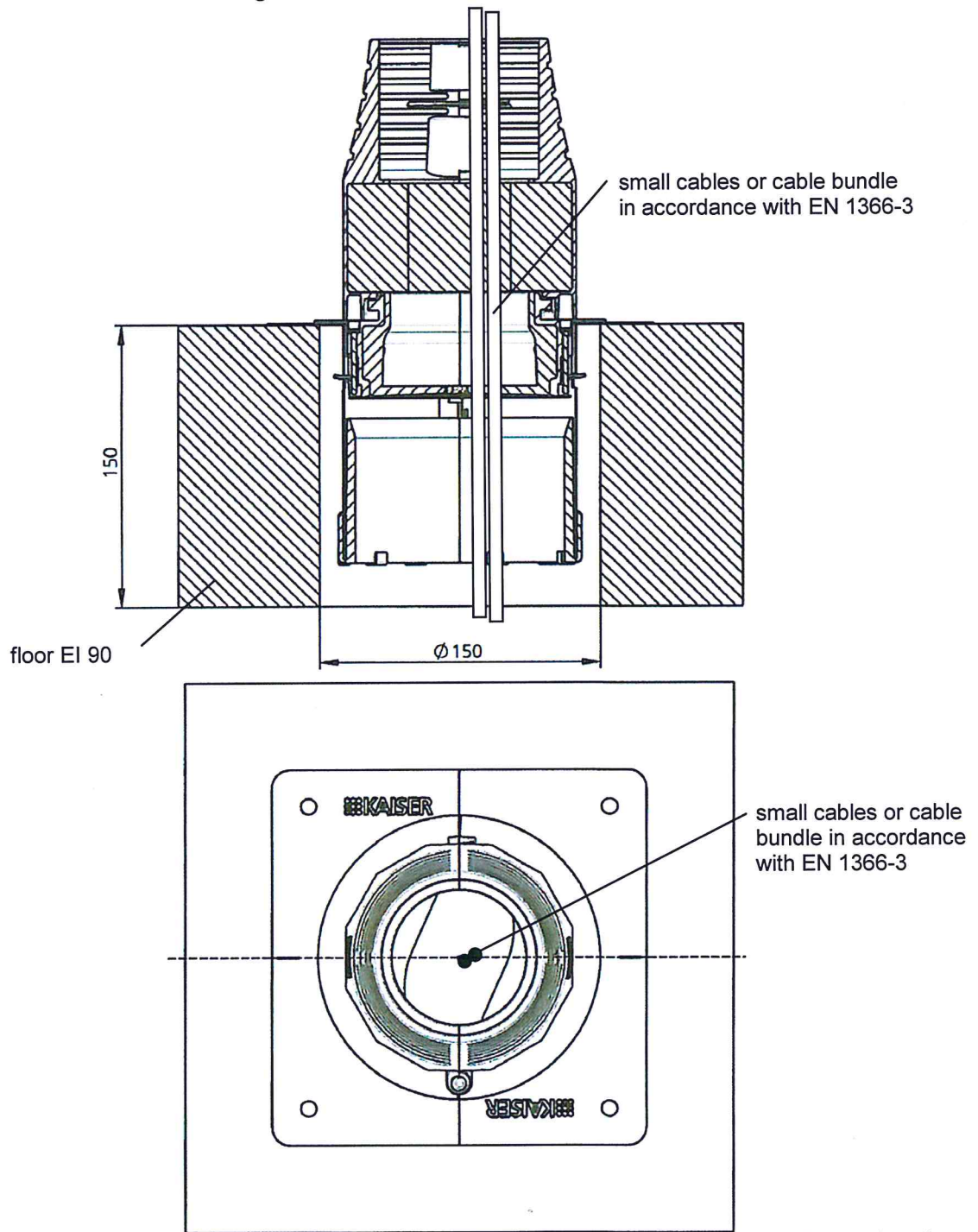
"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm" und "Deckenschott DS90, 120 mm"

Example of cable penetration seal, resistance to fire class EI 90, by using "ceiling penetration sealing system DS 90, 74 mm "

Annex 8

"ceiling penetration sealing system DS 90, 120 mm"

Mounting in floors, resistance to fire class EI 90



Dimensions in mm

"Dosenschott DS90, 74 mm", "Dosenschott DS90, 120 mm", "Deckenschott DS90, 74mm"
und "Deckenschott DS90, 120 mm"

Example of cable penetration seal, resistance to fire class EI 90,
by using "ceiling penetration sealing system DS 90, 120 mm "

Annex 9