

# KAISER Brandabschottungen /

fire sealings / manchons coupe-feu / partizioni  
antincendio / brandweerstandsmoffen

**ETA**  
ETA-14/0159

Montageanleitung / Assembly instructions / Instructions de montage / Istruzioni per il  
montaggio / Montage instructies

Dosenschott Systeme / Box sealing systems / Systèmes de cloisonnement par boîtier / Sistemi di  
compartmentazione / Doosafdichtingssystemen

DS 90 / 74 mm\*  
9459-03



VKF Zulassung / Approval /  
Homologation / Omologazione /  
toelating 21046

DS 90 / 120 mm  
9459-04



VKF Zulassung /  
Approval / Homologation /  
Omologazione / toelating  
23396

\* Weiterhin gültig / Remains valid / Reste valable / Rimane valido / Eveneens geldig: ETA-11/0188

Deckenschott Systeme / Ceiling penetration sealing systems / Systèmes de cloisonnement pour  
plafonds / Sistemi di compartmentazione per soffitti / Plafondafdichtingssystemen

DS 90 / 74 mm  
9459-05



VKF Zulassung / Approval /  
Homologation / Omologazione /  
toelating 25349

DS 90 / 120 mm  
9459-06



VKF Zulassung /  
Approval / Homologation /  
Omologazione / toelating  
25347

Schalungskörper / Formwork body / Cylindre de réservation / Cilindro di riserva / Bekisting

9473-95 / Ø 100 mm



9473-96 / Ø 150 mm



KAISER GmbH & Co. KG

Ramsloh 4 · D-58579 Schalksmühle

Tel.+49(0)2355.809.61 · Fax+49(0)2355.809.21

technik@kaiser-elektro.de · www.kaiser-elektro.de

 **KAISERTECHNIK**

② Dosenschott System DS 90 zur Abschottung von Leitungen, Leitungsbündel und einzelner Installationsrohre. Die Europäische Technische Bewertung (ETA) ist ein Nachweis der Brauchbarkeit eines Bauproduktes im Sinne der Bauproduktenverordnung und muss an der Ver-/Anwendungsstelle vorliegen. Sie stehen daher, sowie alle weiteren Unterlagen, als Download unter [www.kaiser-elektro.de](http://www.kaiser-elektro.de) zur Verfügung. Montage nur durch in der Elektrotechnik ausgebildete Installateure! Liegen keine entsprechenden Fachkenntnisse vor, so kann es zu einer unsachgemäßen Montage kommen, die die Sicherheit gefährdet.

③ Sealing Box System DS 90 for sealing off cables, wire bundles and individual installation pipes. The European Technical Assessment (ETA) is a proof for the fitness for use of a construction product within the meaning of the Construction Products Directive and must be present at the point of use. They are therefore available, together with all other documents, for download at [www.kaiser-elektro.de](http://www.kaiser-elektro.de). Assembly must be carried out by qualified electrical installers! Installation by unqualified persons may result in improper assembly, resulting in safety hazards.

④ Système de boîtier étanche DS 90 pour le cloisonnement de conduites, groupes de lignes et tubes d'installation individuels. Admission européenne ETA (Admission européenne ETA) est une preuve de la convenance d'un produit de construction au sens de la Directive produits de construction et doit être présent sur le site d'utilisation ou d'application. Comme tous les autres documents, ils peuvent être téléchargés sur le site [www.kaiser-elektro.de](http://www.kaiser-elektro.de). Le montage ne doit être confié qu'à des installateurs disposant d'une formation en électrotechnique! Dans le cas contraire, il pourrait être incorrect et affecter la sécurité.

⑤ Sistema Passacavo DS 90 per l'isolamento di cavi, condutture e tubi di installazione singoli. Ammissione europea ETA (Ammissione europea ETA) è la prova dell'utilizzabilità di un prodotto da costruzione secondo la linea guida per i prodotti da costruzione e deve essere mostrata sul luogo di uso e utilizzo. Documenti disponibile per il download, insieme ad altri, sul sito [www.kaiser-elektro.de](http://www.kaiser-elektro.de). Il montaggio deve essere eseguito solo da installatori con conoscenze specializzate in elettrotecnica! Se le persone che eseguono il montaggio non hanno le competenze necessarie, il montaggio può risultare non conforme e non garantire la giusta sicurezza.

⑥ Doosafdichtingssysteem DS 90 voor de afichting van kabels, kabelbundels en afzonderlijke installatiebuizen. Europese technische evaluatie is een bewijs van de geschiktheid van een bouw materiaal volgens de bouwmaterialienrichtlijn en moet aanwezig zijn op de plaats waar het materiaal wordt verwerkt/toegestaan. Deze toelatingen en alle andere documenten kunnen gedownload worden op [www.kaiser-elektro.de](http://www.kaiser-elektro.de). Montage enkel door installateurs met een elektrotechnische opleiding! Gebrek aan de nodige vakkennis kan aan de basis liggen van een ondeskundige montage, waardoor de veiligheid in gevaar komt.

|                                                                                  |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>0761</b><br><b>KAISER GmbH &amp; Co. KG</b><br>Ramsloh 4<br>58579 Schalksmühle<br><b>Deutschland / Germany</b><br><b>14</b><br><b>0761 - CPR - 0407</b><br><b>ETA-14/0159</b><br><b>ETAG 026 - Teil 2 / Part 2</b><br><b>Kabelabschottung /</b><br><b>Cable Penetration Seal</b> | <b>„KSS KAISER Schott System</b><br><b>„Dosenschott DS 90, 74 mm‘</b><br><b>„Dosenschott DS 90, 120 mm‘</b><br><b>„Deckenschott DS 90, 74 mm‘</b><br><b>„Deckenschott DS 90, 120 mm‘“</b><br><b>Formteil / Moulded part</b><br><b>„Dosenschott DS 90, 74 mm“</b><br><b>und / and</b><br><b>„Dosenschott DS 90, 120 mm“</b><br><b>Nutzungskategorie /</b><br><b>Use category</b><br><b>Z<sub>2</sub></b> |
|                                                                                  |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                  |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                  |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>② Technischer Hinweis Dosenschott Systeme DS 90 / 74 mm und DS 90 / 120 mm:</b><br><b>Einbau in leichten Trennwänden:</b><br><b>Ständerbauart Stahlunterkonstruktion oder Holzunterkonstruktion</b><br>- 2 Lagen aus 12,5 mm dicken mineralischen (z.B. zement- bzw. gipsgebundenen) Bauplatten mit einem Brandverhalten der Klasse A1 bzw. A2 nach EN 13501-1 (nicht brennbare Baustoffe).<br>- Öffnungen zu Ständer und Riegeln $\geq 100$ mm<br>- Mindestwanddicke $\geq 100$ mm<br>- Für klassifizierte Wände gemäß EN 13501-2 mit einer Feuerwiderstandsdauer von EI30 - EI90 | <b>Montage in Massivwänden: Mauerwerk, Beton, Stahlbeton oder Porenbeton</b><br>- Dichte der Wand $\geq 630$ kg/m <sup>3</sup><br>- Mindestwanddicke $\geq 100$ mm<br>- Für klassifizierte Wände gemäß EN 13501-2 mit einer Feuerwiderstandsdauer von EI30 - EI90<br>Die unterstützende Halterung (Abstand von $\leq 500$ mm beidseitig der Abschottung) muss aus Baustoffen der Klasse A1 oder A2 nach EN 13501-1 bestehen<br>Innenanwendung ohne hohe Feuchtigkeit und ohne Temperaturen unter 0 °C. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>③ Technical information on box sealing systems DS 90 / 74 mm and DS 90 / 120 mm:</b><br><b>Installation in light separator walls: Stud frame design steel subconstruction or wood subconstruction</b><br>- 2 layers consisting of 12.5 mm thick mineral (e.g. cement-bonded or plaster-bonded) construction panels with fire behaviour of class A1 or A2 acc. to EN 13501-1 (non-inflammable building materials).<br>- Openings to stud frames and pressure bars $\geq 100$ mm<br>- Minimum wall thickness $\geq 100$ mm<br>- For classified walls in accordance with EN 13501-2 with fire resistance of EI30 - EI90 | <b>Installation in solid walls: Masonry, concrete, reinforced concrete or cellular concrete</b><br>- Wall density $\geq 630$ kg/m <sup>3</sup><br>- Minimum wall thickness $\geq 100$ mm<br>- For classified walls in accordance with EN 13501-2 with fire resistance of EI30 - EI90<br>The supporting mounting (clearance of $\leq 500$ mm on both sides of the sealing) must consist of class A1 or A2 building materials acc. to EN 13501-1<br>Interior application without high level of moisture and without temperatures below 0°C. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>④ Indications techniques pour les systèmes DS 90 / 74 mm et DS 90 / 120 mm:</b><br><b>Montage dans des parois creuses:</b><br><b>Ossature en acier ou en bois</b><br>- Appliquer 2 couches de plaques minérales, épaisseur de 12,5 mm chacune (p.e. placo-plâtre), classe de résistance au feu A1 resp. A2 selon EN 13501-1 (matériau de construction non combustible).<br>- Orifices distancés de l'ossature/colombage $\geq 100$ mm<br>- Epaisseur de paroi minimale $\geq 100$ mm<br>- Pour des parois classifiées selon EN 13501-2 avec résistance au feu EI30 - EI90<br>Installations à l'intérieure, sans humidité élevée ou températures au dessous de 0 °C. | <b>Montage dans des parois massives:</b><br><b>Maçonnerie, béton, béton armé ou poreux</b><br>- Densité de la paroi $\geq 630$ kg/m <sup>3</sup><br>- Epaisseur minimale de la paroi $\geq 100$ mm<br>- Pour des parois classifiées selon EN 13501-2 avec résistance au feu EI30 - EI90<br>Le tracé des câbles (distance du cloisonnement $\leq 500$ mm) doit être construit de matériau de construction des classes A1 ou A2 selon EN 13501-1<br>Installations à l'intérieure, sans humidité élevée ou températures au dessous de 0 °C. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>⑤ Indicazioni tecniche per le compartimentazioni DS 90 / 74 mm e DS 90 / 120 mm:</b><br><b>Installazione in pareti costruite a secco:</b><br><b>Montanti in acciaio o legname</b><br>- Applicare 2 strati di piastre fabbricate di fibre minerali (a.e. con legante a base di cemento o gesso) con uno spessore di 12,5 mm e con classe di resistenza al fuoco A1 resp. A2 secondo EN 13501-1 (materiale di costruzione non combustibile).<br>- Distanza delle aperture dai montanti/sbari $\geq 100$ mm<br>- Spessore minimo della parete $\geq 100$ mm<br>- Per delle pareti classificate secondo EN 13501-2 con resistenza al fuoco EI30 - EI90<br>Installazioni all'interno, senza umidità elevata o temperature al di sotto di 0 °C. | <b>Installazione nei muri massicci:</b><br><b>Muraglia, calcestruzzo, cemento armato o poroso</b><br>- Densità della parete $\geq 630$ kg/m <sup>3</sup><br>- Spessore minimo della parete $\geq 100$ mm<br>- Per delle pareti classificate secondo EN 13501-2 con resistenza al fuoco EI30 - EI90<br>Il supporto per i cavi (distanza dalla compartimentazione $\leq 500$ mm) deve essere costruito di materiali di costruzione della classe A1 o A2 secondo EN 13501-1<br>Installazioni all'interno, senza umidità elevata o temperature al di sotto di 0 °C. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NL | <p><b>Technische instructies doosafdichtingsystemen DS 90 / 74 mm en DS 90 / 120 mm:</b></p> <p><b>Inbouw in lichte scheidingswanden: Skeletbouw met stalen of houten onderconstructie</b></p> <ul style="list-style-type: none"> <li>- 2 lagen 12,5 mm dikke minerale (bv. cement- of gipsgebonden) bouwplaten met een brandgedrag van klasse A1 of A2 volgens EN 13501-1 (onbrandbare bouwmaterialen).</li> <li>- openingen tot stijlen en regels ≤ 100 mm</li> <li>- minimale wanddikte ≥ 100 mm</li> <li>- voor geclassificeerde wanden volgens EN 13501-2 met een brandwerendheidsduur van EI30 - EI90</li> </ul> <p><b>Montage in massieve wanden: Metselwerk, beton, gewapend beton of cellenbeton</b></p> <ul style="list-style-type: none"> <li>- dichtheid van de wand ≥ 630 kg/m<sup>3</sup></li> <li>- minimale wanddikte ≥ 100 mm</li> <li>- voor geclassificeerde wanden volgens EN 13501-2 met een brandwerendheidsduur van EI30 - EI90</li> </ul> <p>De ondersteunende bevestiging (afstand van ≤ 500 mm aan weerszijden van de afscherming) moet bestaan uit bouwmaterialen van klasse A1 of A2 volgens EN 13501-1</p> |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D | <p><b>Technischer Hinweis Deckenschott Systeme DS 90 / 74 mm und DS 90 / 120 mm:</b></p> <p><b>Einbau in Beton- oder Porenbetondecken:</b><br/>Die unterstützende Halterung (Abstand von ≤ 500 mm beidseitig der Abschottung) muss aus Baustoffen der Klasse A1 oder A2 nach EN 13501-1 bestehen.</p> <ul style="list-style-type: none"> <li>• Dichte der Decke ≥ 550 kg/m<sup>3</sup></li> </ul> <ul style="list-style-type: none"> <li>• Mindestdeckendicke ≥ 150 mm</li> <li>• Mit einer Feuerwiderstandsdauer EI30 – EI90</li> </ul> <p>Die Montage erfolgt durch ein Deckenoberseitiges einfaches und schnelles Einsetzen in Deckenstärken von 150-300 mm.</p> <p>Innenanwendung ohne hohe Feuchtigkeit und ohne Temperaturen unter 0 °C.</p> |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GB | <p><b>Technical information on ceiling penetration seal systems DS 90 / 74 mm and DS 90 / 120 mm:</b></p> <p><b>Installation in concrete or cellular concrete ceilings:</b> The supporting mounting (clearance of ≤ 500 mm on both sides of the sealing) must consist of class A1 or A2 building materials acc. to EN 13501-1.</p> <ul style="list-style-type: none"> <li>• Ceiling density ≥ 550 kg/m<sup>3</sup></li> </ul> <ul style="list-style-type: none"> <li>• Minimum ceiling thickness ≥ 150 mm</li> <li>• With fire resistance of EI30 – EI90</li> </ul> <p>Installation takes place by means of fast, easy fitting on the ceiling upper surface for ceiling thicknesses of 150-300 mm.</p> <p>Interior application without high level of moisture and without temperatures below 0°C.</p> |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FR | <p><b>Indications techniques pour les cloisonnements de plafond DS 90 / 74 mm et DS 90 / 120 mm:</b></p> <p><b>Montage dans des plafonds en béton ou béton poreux:</b></p> <ul style="list-style-type: none"> <li>• Le tracé des câbles (distance du cloisonnement ≤ 500 mm) doit être construit de matériau de construction des classes A1 ou A2 selon EN 13501-1</li> <li>• Densité du plafond ≥ 550 kg/m<sup>3</sup></li> </ul> <ul style="list-style-type: none"> <li>• Epaisseur minimale du plafond ≥ 150 mm</li> <li>• Classe de résistance au feu EI30 – EI90</li> </ul> <p>Montage en incorporant le cloisonnement dans des dalles avec une épaisseur de 150-300 mm depuis le haut.</p> <p>Installations à l'intérieure sans humidité élevée ou températures au dessous de 0 °C.</p> |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I | <p><b>Indicazioni tecniche per le compartimentazioni per soffitti DS 90 / 74 mm e DS 90 / 120 mm:</b></p> <p><b>Montaggio nei soffitti in calcestruzzo o cemento poroso:</b></p> <ul style="list-style-type: none"> <li>• Il supporto per i cavi (distanza dalla compartimentazione ≤ 500 mm) deve essere costruito di materiali di costruzione della classe A1 o A2 secondo EN 13501-1</li> <li>• Densità del soffitto ≥ 550 kg/m<sup>3</sup></li> </ul> <ul style="list-style-type: none"> <li>• Spessore minimo del soffitto ≥ 150 mm</li> <li>• Classe di resistenza al fuoco EI30 – EI90</li> </ul> <p>Il montaggio si eseguisce incorporando la compartimentazione nel soffitto di uno spessore di 150-300 mm dal lato superiore.</p> <p>Installazioni all'interno, senza umidità elevata o temperature al di sotto di 0 °C.</p> |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NL | <p><b>Technische instructies plafondafdichtingsystemen DS 90 / 74 mm en DS 90 / 120 mm:</b></p> <p><b>Inbouw in plafonds van beton of cellenbeton:</b><br/>De ondersteunende bevestiging (afstand van ≤ 500 mm aan weerszijden van de afscherming) moet bestaan uit bouwmaterialen van klasse A1 of A2 volgens EN 13501-1.</p> <ul style="list-style-type: none"> <li>• dichtheid van het plafond ≥ 550 kg/m<sup>3</sup></li> </ul> <ul style="list-style-type: none"> <li>• minimale plafonddikte ≥ 150 mm</li> <li>• met een brandwerendheidsduur EI30 – EI90</li> </ul> <p>De montage gebeurt eenvoudig en snel aan de bovenzijde van het plafond in plafonddiktes van 150-300 mm.</p> <p>Binnentoepassing zonder hoge vochtigheid en zonder temperaturen beneden 0 °C.</p> |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| D | Belegung                        | Typen                                                                                                                                                                                                                                                      | Anzahl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Mantelleitungen                 | <ul style="list-style-type: none"> <li>- Installationsleitungen (z.B. NYM-Leitungen)</li> <li>- Datenkabel (z.B. CAT-Leitungen)</li> <li>- Telekommunikationsleitungen (z.B. J-Y(St)Y)</li> <li>- Lichtwellenleiter (LWL)</li> </ul>                       | <p><b>Decken- und Dosenschott System DS 90 / 74 mm:</b></p> <ul style="list-style-type: none"> <li>- Leitungsbündel Ø 40 mm (Vollbelegung)</li> <li>- Größte Einzelkabel im Bündel Ø ≤ 15 mm</li> <li>- Größte Einzelkabel Ø ≤ 21 mm</li> </ul> <p><b>Decken- und Dosenschott System DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- Leitungsbündel Ø 74 mm (Vollbelegung)</li> <li>- Größte Einzelkabel im Bündel Ø 29 mm</li> <li>- Mischbelegung von Leitungen und Rohren zulässig</li> </ul> |
|   | Elektroinstallationsrohre (EIR) | <p><b>EIR aus Polyolefin:</b></p> <ul style="list-style-type: none"> <li>- Polyethylen PE, Polypropylen PP</li> </ul> <p><b>Deckenschott Systeme DS 90 / 74 mm und DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- EIR aus PVC</li> </ul> | <p><b>Decken- und Dosenschott System DS 90 / 74 mm:</b></p> <ul style="list-style-type: none"> <li>- Einzelrohre Ø ≤ 40 mm</li> </ul> <p><b>Decken- und Dosenschott System DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- Einzelrohre bis M63 auch als Bündel zulässig</li> <li>- PVC Rohre bis M50 zulässig</li> </ul>                                                                                                                                                                         |

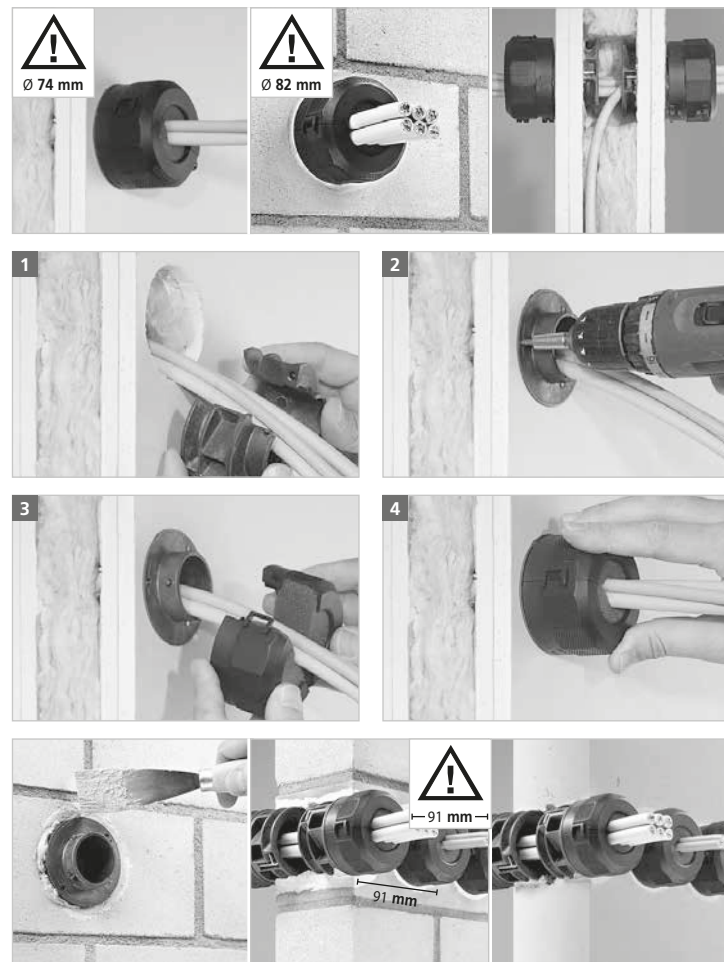
| GB | Population                             | Types                                                                                                                                                                                                                                                                            | Quantity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Sheathed cables                        | <ul style="list-style-type: none"> <li>- Installation cables (e.g. NYM cables)</li> <li>- Data cables (e.g. CAT cables)</li> <li>- Telecommunication (e.g. J-Y(St)Y)</li> <li>- Fibre optic cables (LWL)</li> </ul>                                                              | <p><b>Ceiling and box ceiling system DS 90 / 74 mm:</b></p> <ul style="list-style-type: none"> <li>- Cable bundle Ø 40 mm (full population)</li> <li>- Largest individual cable in the bundle Ø ≤ 15 mm</li> <li>- Largest individual cable Ø ≤ 21 mm</li> </ul> <p><b>Ceiling and box ceiling system DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- Cable bundle Ø 74 mm (full population)</li> <li>- Largest individual cable in the bundle Ø 29 mm</li> <li>- Mixed population of cables and conduits is permissible</li> </ul> |
|    | Electrical installation conduits (EIR) | <p><b>EIR made of polyolefin:</b></p> <ul style="list-style-type: none"> <li>- Polyethylene PE, Polypropylene PP</li> </ul> <p><b>Ceiling penetration seal systems DS 90 / 74 mm and DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- EIR made of PVC</li> </ul> | <p><b>Ceiling penetration seal system DS 90 / 74 mm:</b></p> <ul style="list-style-type: none"> <li>- Individual conduits Ø ≤ 40 mm</li> </ul> <p><b>Ceiling penetration seal system DS 90 / 120 mm:</b></p> <ul style="list-style-type: none"> <li>- Individual conduits up to M63 also permissible as a bundle</li> <li>- PVC conduits permissible up to M50</li> </ul>                                                                                                                                                                            |

| Occupation           | Types                                                                                                                                                                                                                                                     | Nombre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Câbles               | <ul style="list-style-type: none"> <li>- Câbles d'installation (p.e. conducteurs NYM)</li> <li>- Câbles de données (p.e. câblage CAT)</li> <li>- Câbles de télécommunication (p.e. J-Y(St)Y)</li> <li>- Conducteurs optiques</li> </ul>                   | <b>Systèmes DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Faisceaux de câbles Ø 40 mm (Remplissage complet)</li> <li>- Diamètre max. d'un câble du faisceau Ø ≤ 15 mm</li> <li>- Diamètre max. d'un câble unique Ø ≤ 21 mm</li> </ul> <b>DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Faisceaux de câbles Ø 74 mm (Remplissage complet)</li> <li>- Diamètre max. d'un câble du faisceau Ø 29 mm</li> <li>- Pour le passage d'un ensemble de câbles et tubes</li> </ul> |
| Tubes d'installation | <b>Tubes en polyoléfinés</b> <ul style="list-style-type: none"> <li>- Polyéthylène PE,</li> <li>- Polypropylène PP</li> </ul> <b>Systèmes pour plafonds DS 90/74 mm et DS 90/120 mm:</b> <ul style="list-style-type: none"> <li>- Tubes en PVC</li> </ul> | <b>Système pour plafond DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Tube unique Ø ≤ 40 mm</li> </ul> <b>Système pour plafond DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Tubes individuels jusqu'à M63 aussi en faisceau</li> <li>- Tubes en PVC jusqu'à M50</li> </ul>                                                                                                                                                                                             |

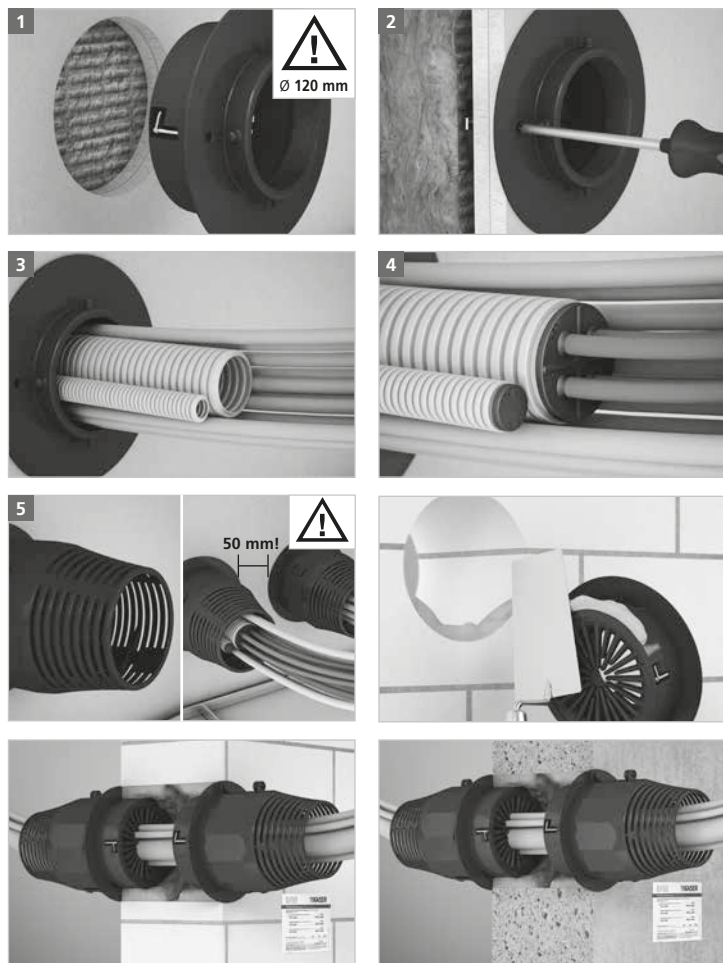
| Occupazione          | Tipi                                                                                                                                                                                                                                                  | Anzahl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cavi                 | <ul style="list-style-type: none"> <li>- Cavi d'installazione (a.e. conduttori NYM)</li> <li>- Cavi per data (a.e. conduttori CAT)</li> <li>- Cavi di telecomunicazione (a.e. J-Y(St)Y)</li> <li>- Fibre ottiche</li> </ul>                           | <b>Sistema per soffitti DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Fasci di cavi Ø 40 mm (Riempimento completo)</li> <li>- Diametro max. di un cavo nel fascio Ø ≤ 15 mm</li> <li>- Diametro massimo di un cavo singolo Ø ≤ 21 mm</li> </ul> <b>Sistema per soffitti DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Fasci di cavi Ø 74 mm (Riempimento completo)</li> <li>- Diametro max. di un cavo nel fascio Ø 29 mm</li> <li>- Passaggio di un insieme di cavi e tubi ammesso</li> </ul> |
| Tubi d'installazione | <b>Tubo di poliolefina:</b> <ul style="list-style-type: none"> <li>- Polietilene PE,</li> <li>- Polipropilene PP</li> </ul> <b>Sistemi per soffitti DS 90 / 74 mm DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Tubi di PVC</li> </ul> | <b>Sistema per soffitti DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Tubo unico Ø ≤ 40 mm</li> </ul> <b>Sistema per soffitti DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Tubi individuali fino a M63 anche in fasci</li> <li>- Tubi di PVC ammessi fino a M50</li> </ul>                                                                                                                                                                                                                    |

| Bezetting                           | Types                                                                                                                                                                                                                                                            | Aantal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mantelleidingen                     | <ul style="list-style-type: none"> <li>- Installatieleidingen (bv. NYM-leidingen)</li> <li>- Datakabels (bv. CAT-leidingen)</li> <li>- Telecommunicatie-leidingen (bv. J-Y(St)Y)</li> <li>- Glasvezelkabel (GVK)</li> </ul>                                      | <b>Plafond- en doosafdichtingssysteem DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Kabelbundel Ø 40 mm (volledige bezetting)</li> <li>- Grootste individuele kabel in de bundel Ø ≤ 15 mm</li> <li>- Grootste individuele kabel Ø ≤ 21 mm</li> </ul> <b>Plafond- en doosafdichtingssysteem DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Kabelbundel Ø 74 mm (volledige bezetting)</li> <li>- Grootste individuele kabel in de bundel Ø 29 mm</li> <li>- Gemengde bezetting van kabels en buizen toegelaten</li> </ul> |
| Elektrische installatiebuizen (EIB) | <b>EIB uit polyolefines:</b> <ul style="list-style-type: none"> <li>- Polyethyleen PE,</li> <li>- polypropyleen PP</li> </ul> <b>Plafondafdichtingssystemen DS 90 / 74 mm en DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- EIB uit pvc</li> </ul> | <b>Plafondafdichtingssysteem DS 90 / 74 mm:</b> <ul style="list-style-type: none"> <li>- Individuele buizen Ø ≤ 40 mm</li> </ul> <b>Plafondafdichtingssysteem DS 90 / 120 mm:</b> <ul style="list-style-type: none"> <li>- Individuele buizen tot M63 ook als bundel toegelaten</li> <li>- Pvc-buizen tot M50 toegelaten</li> </ul>                                                                                                                                                                                                                  |

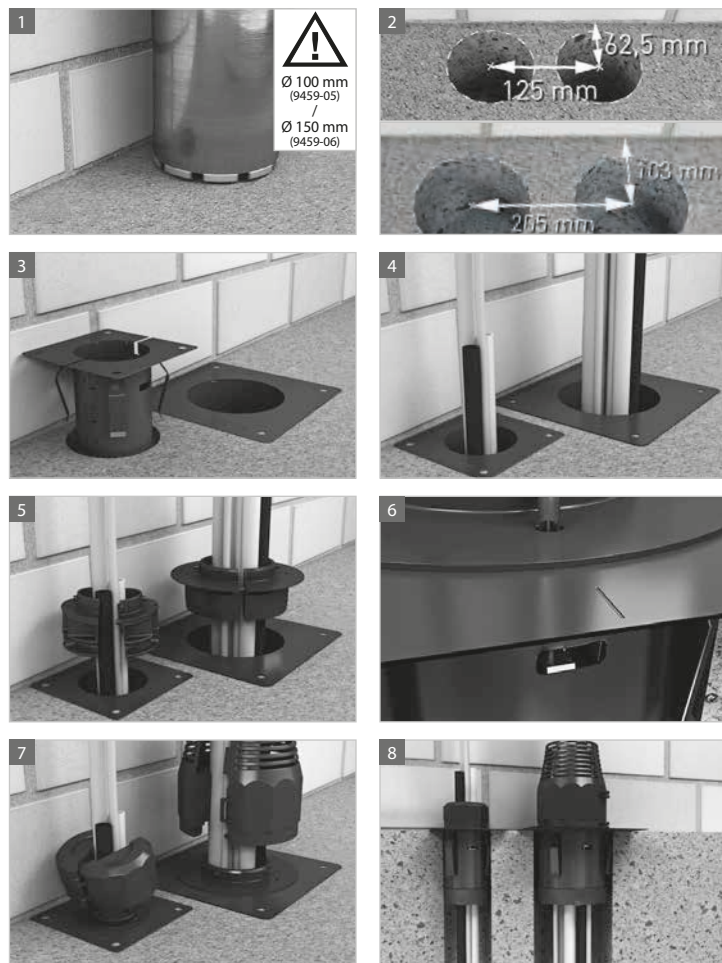
Dosenschott Systeme / Box sealing systems / Systèmes de cloisonnement par boîtier / Sistemi di compartimentazione / Doosafdichtingssystemen



Dosenschott Systeme / Box sealing systems / Systèmes de cloisonnement par boîtier / Sistemi di compartimentazione / Doosafdichtingssystemen



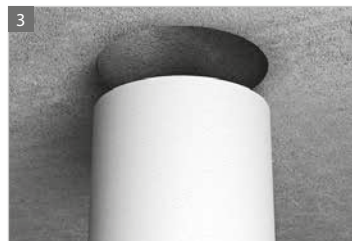
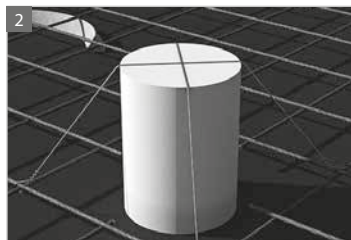
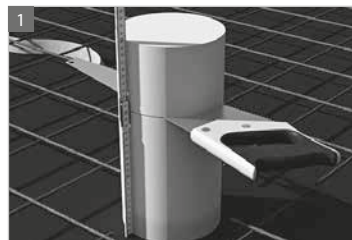
Deckenschott Systeme / Ceiling penetration sealing systems / Systèmes de cloisonnement pour plafonds / Sistemi di compartimentazione per soffitti / Plafondafdichtingssystemen



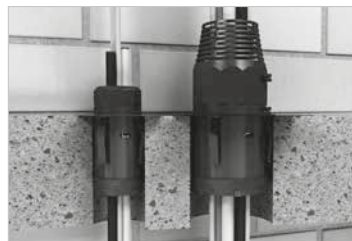


Schalungskörper / Formwork body / Cylindre de réservation / Cilindro di riserva / Bekisting  
(Art.-Nr. 9473-95/-96)

- Zur vorbereiteten Installation in Betondecken, bietet KAISER einen Schalungskörper für passende Aussparungen an.
- For prepared installation in concrete ceilings KAISER offers a formwork unit for matching openings.
- Pour la préparation d'une installation adaptée, des cylindres de réservation sont disponibles dans la bonne dimension.
- Per apprestare un'installazione calzante, dei cilindri di riserva dimensionati di maniera ideale sono disponibili.
- Ter voorbereiding van installatie in betonnen plafonds, biedt Kaiser een bekisting aan voor passende uitsparingen.



- Nach dem Entschalen den Schalungskörper aus der Bauteilöffnung entfernen.
- After striking the formwork, remove the formwork unit from the component opening.
- Eliminer de l'orifice le cylindre de réservation après le décoffrage.
- Dopo aver tolto la cassaforma, ritirare il cilindro di riserva dall'orificio.
- Na het storten, het bekistingselement uit de opening verwijderen.



## KAISER Brandschutz-Systeme. Auf einen Blick.

### Brandschutzdosen HWD 90



Gerätedose  
HWD 90  
9463-01



Geräte-Verbindungs-  
dose HWD 90  
9464-01



Electronic-Dose  
HWD 90  
9462-94



Brandschutzdeckel  
HWD 30-90  
1184-94



Verbindungs-  
stützen  
9060-78

### Schottsysteme LS 90 und RS 90 und System DS 90 / 74 mm und DS 90 / 120 mm ETA-Zulassung: 1. Schottserie mit europäischer Zulassung

Ø 20 mm



Leitungsschott  
System LS 90  
9459-01

Ø 35 / 32 mm



Rohrschott  
System RS 90  
9459-02

Ø 74 mm



Dosenschott System  
DS 90 / 74 mm  
9459-03

Ø 120 mm



Dosenschott System  
DS 90 / 120 mm  
9459-04

### Brandschutz-Deckendosen HWD 30



Deckendose  
HWD 30  
9463-50



Decken-Verbindungs-  
dose HWD 30  
9464-50

### Brandschutzgehäuse



Einbaugehäuse  
FlamoX'-S 30 H  
9430-01



Einbaugehäuse  
FlamoX'-S 30 E  
9435-01 | 9435-02

### Deckenschott Systeme



DS 90 / 74 mm  
9459-05



DS 90 / 120 mm  
9459-06



Schalungskörper  
9473-95/96

Ø 100 mm /  
Ø 150 mm

## KAISER Elektro-Installation

Dosen, Gehäuse und Systeme



Die Basis der guten Installation

### Brandschutz.

Dosen-, Gehäuse- und Schottsysteme  
für Brandschutzwände und -decken.



KAISER

[www.kaiser-elektro.de](http://www.kaiser-elektro.de)  
[www.agro.ch](http://www.agro.ch)  
[www.helia-elektro.be](http://www.helia-elektro.be)

## NEU / NEW / NOUVEAU / NUOVO / NIEUW: KAISER-App.



Laden im  
App Store



JETZT BEI  
Google play



- (D) Sehen Sie sich einfach und schnell das Video zur Installation an! QR Code scannen und los gehts!
- (GB) Just watch the installation video, scan the QR code and get started!
- (FR) Il vous suffit alors de consulter la vidéo d'installation! Scannez le code QR et c'est parti!
- (I) Guardi semplicemente il filmato di installazione, scannerizzi il codice QR, e potrà iniziare!
- (NL) Bekijk snel de installatievideo! QR-code scannen en klaar!