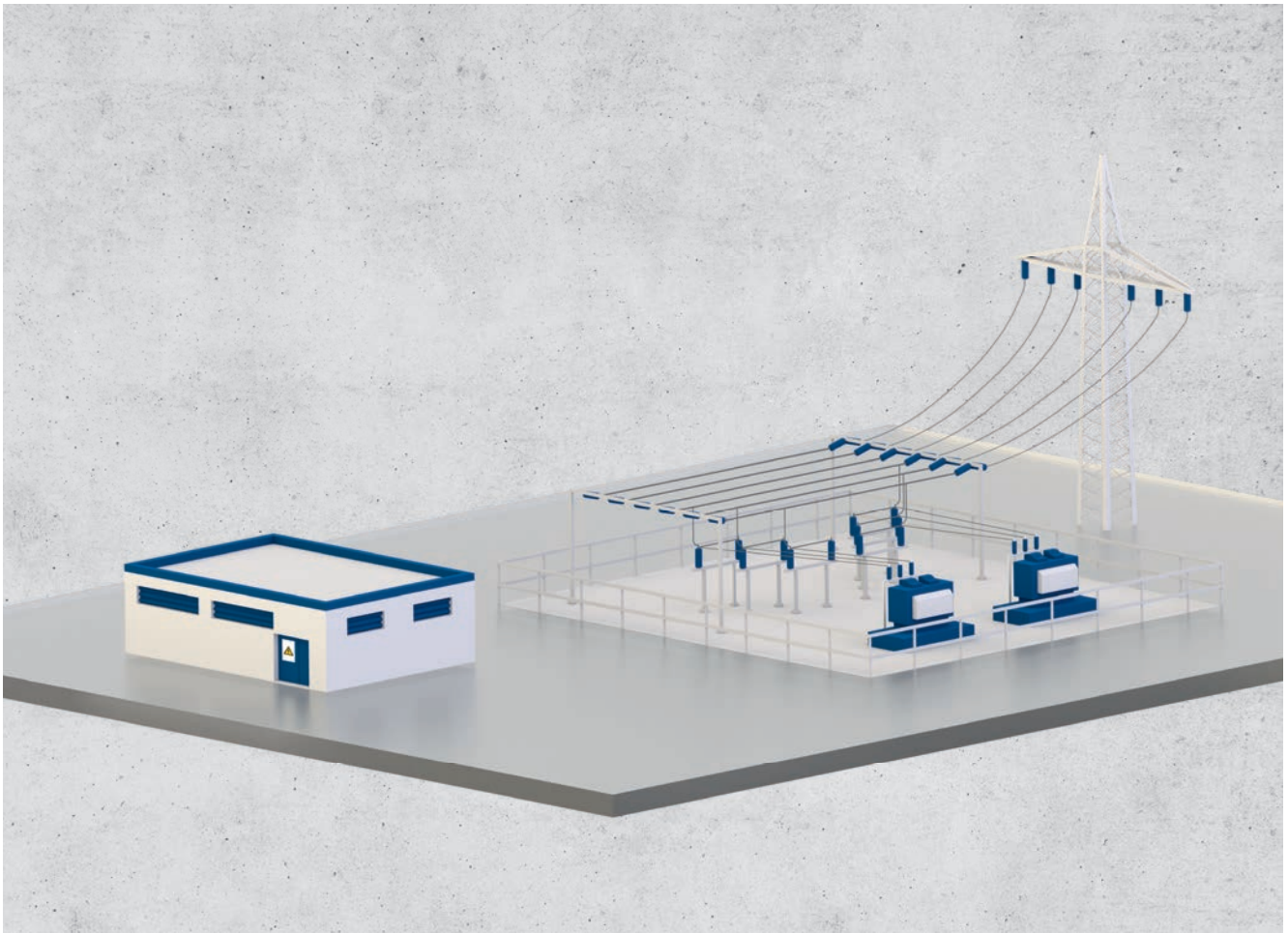


Always. Reliable. Tight.

hauff-
technik®



FOR SUBSTATIONS, SWITCH GEAR AND ENGINEERING BUILDINGS
CONSTRUCTED USING CONVENTIONAL METHODS

CABLE ENTRIES AND PIPE ENTRIES

For substations, switch gear and engineering buildings constructed using conventional methods

CABLE ENTRIES AND PIPE ENTRIES

A substation is an essential component of the electrical supply network. To ensure error-free operation and high service security in the long term, buildings housing primary and secondary technology – some of which is very sensitive – must be protected against the ingress of water as well as damage caused by rodents and reptiles.

Hauff-Technik cable entries are often used in the secondary technology area of substations (to protect the supply and regulate voltage, for remote control and ripple control, etc.). We offer solutions for every cable type and diameter. In the primary technology area too, cables in switch gear buildings, for example, are sealed with cable entries. Our press seals are ideal for sealing pipes in transformer trays which are used to connect the transformer trays

Conduit routes, possibly combined with cable shafts, have proved a reliable solution enabling cables to be replaced in a substation without subsequent groundwork and the associated risks. We have the ideal connection option for every cable duct. Hauff-Technik cable entry systems can be used to create pressure-tight building connections with an empty conduit system.

Hauff-Technik provides solutions not only for new-build projects – where provision is made right at the planning stage and the corresponding equipment is set in concrete when the building is constructed – but also for existing buildings for retrofit installation in core drills.

Detailed information about our products is available on the following pages.

OVERVIEW OF OUR PRODUCT SOLUTIONS

Building-Integrated Substation

- Cable entry for connection of a rigid duct
- Cable entry with flexible duct connection
- Fire protection
- Earthing entry

Transformer station with switch gear building

- Cable entry for connection of a rigid duct
- Cable entry without connection for cable duct
- Earthing entry

Cable duct

- Cable entry for connection of a rigid duct
- Cable entry without connection for cable duct

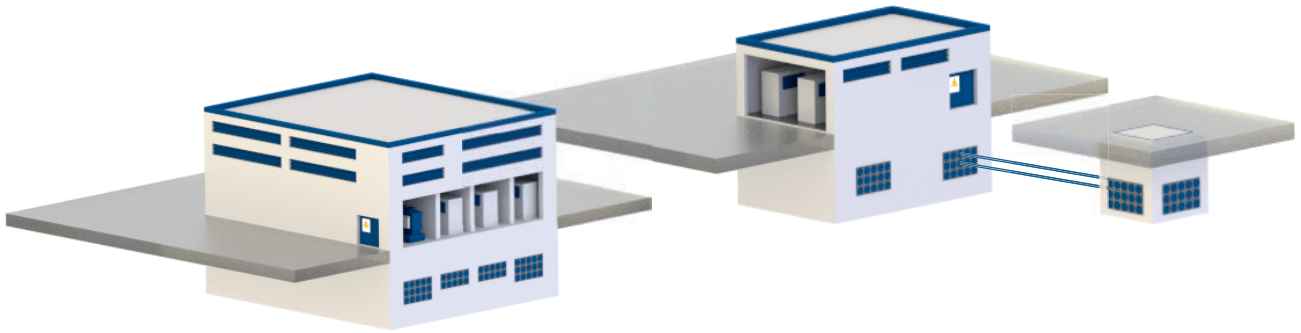
OUR PLANNING SUPPORT FOR ARCHITECTS AND SPECIALISED PLANNERS

Your project is in good hands with us. We will provide you with direct, rapid support in technical questions and will be glad to assist you in professional insertion and sealing of cables and pipes. Whatever you are planning, you will perfect it with Hauff-Technik. We will be glad to advise you individually and personally.

Planning support team for architects and specialised planners

Robert-Bosch-Straße 9
89568 Hermaringen, GERMANY

Tel. +49 7322 1333-660
planungssupport@hauff-technik.de

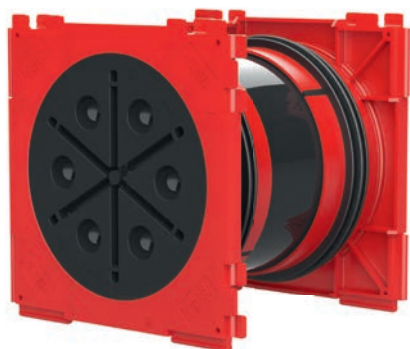


WALL INSERTS AND FLANGE



HSI 150-K/X single wall insert with one-sided connection on the outside of the building

Single wall inserts are available for wall thickness as of 70 mm. Along with a closing cover, single wall inserts are equipped with a safety cover, which is only removed immediately before laying the cable. Customers benefit from double reliability, as wall thicknesses from 70 to 150 mm are protected not only against water getting into the building but also against oil leaking out of the building into the surrounding area should the closing cover be opened accidentally or prematurely. A variety of system seals are available for sealing cables and ducts.



HSI 150-K2/X double wall insert with connection on both sides

Double wall inserts are available for wall thickness as of 100 mm. They are equipped with pressure-tight closing covers on both sides. They can be used to connect cable ducts and also to seal the cables on the inside of the building. Packages can be created using the square installation frame. The double wall insert offers maximum flexibility for sealing and essential advantages over core drills and wall sleeves.



Cable sealing system 150

WALL INSERTS AND FLANGE



HSI 150-GSM single wall insert with plug-in socket

The single wall insert with plug-in socket is the ideal and particularly cost-effective solution for connecting smooth cable ducts to buildings and cable shafts. The pressure-tight blind cover that is pre-mounted on the HSI 150-GSM prior to delivery also prevents water ingress into the building if cable ducts have already been connected. After the cable has been laid, it is preferably sealed with split system seals on the inside of the building.



HSI 150-K2-S30°/45°/60°/X slanted wall insert

The HSI 150 slanted wall insert is the ideal solution for routing cables or cable ducts through walls at an angle. Thanks to the slanted installation, cables can be laid in compliance with minimum bending radii. Designs in 30°, 45° or 60° are available as single or double wall inserts. Packages are available in single rows. Slanted wall inserts are delivered ready for installation flush with formwork with polystyrene wedges.

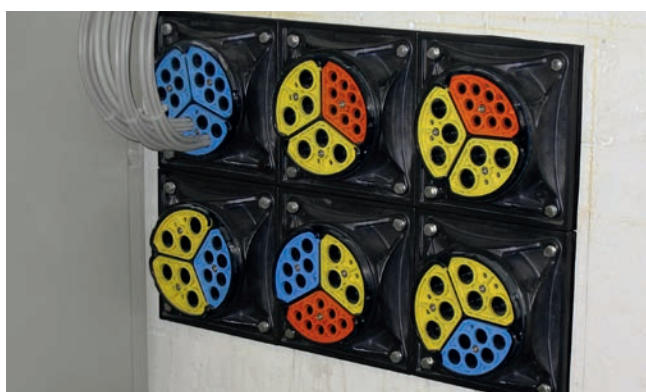


Cable sealing system 150 WALL INSERTS AND FLANGE



HSI 150-DFK flange

The HSI-150 DFK plastic flange is installed on the outside of the building covering a core drill (\varnothing max. 150 mm). The leak-tight connection to the wall is achieved using a 6-mm-thick surface seal made of EPDM. The fastening elements are made of high quality stainless steel inclusive sealing washer. The integrated spirit level simplifies the horizontal adjustment. All HSI 150 system covers and system seals can be installed. The HSI 150-DFK is the ideal and flexible solution in the absence of single and double wall inserts.



Cable sealing system 150 SYSTEM COVER AND SYSTEM SEALS FOR CABLES



HSI 150-D1/80, 3/58 or 7/33 system cover with shrink sleeves

The system covers with bayonet system are installed in the wall inserts before the cables are laid. Variants with different socket diameters are available according to requirements for sealing the cables. Hot or, alternatively, cold shrink sleeves are included in the scope of delivery. System covers with larger sockets are supplied with an additional centring strap. Empty sockets are sealed with VS blind plugs.



Cable sealing system 150

SYSTEM COVER AND SYSTEM SEALS FOR CABLES



HSI 150-DG-1/36-70, 1/70-112, 3/24-54 or 6/10-36 split system cover

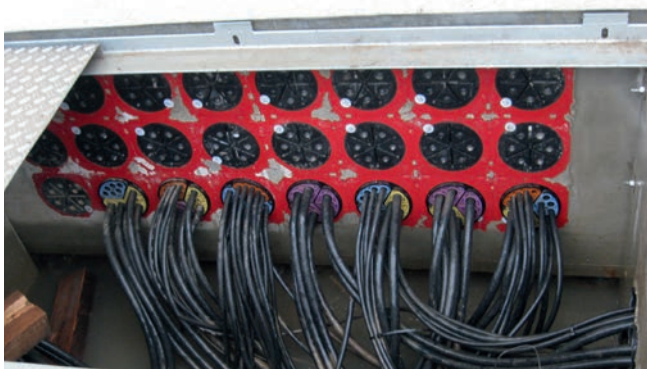
The HSI 150-DG system cover is installed after the cables have been laid. This means that the entire cross-section of the cable entry is available when laying the cables. An adapter ring, which is also split, ensures an optimum position of the seal. Thanks to the patented super segmented ring technology with precisely marked application ranges, the seal insert can be adjusted on site to correspond to the cables that have been laid.

The split HSI 150-DG and the system cover with sleeves, cover the application ranges of standard power cables and are the preferred solution for these applications.



SEGMENTO

With Technogel, the seal material used for SEGMENTO, cables can be sealed in a particularly gentle manner. Four segments, which can be installed in any combination in the HSI 150-S3 system cover, are available in an application range from 5 – 31 mm. Retrofitting is very simple. All segments are supplied with blind plugs. Sealing signal, data and control cables is their typical area of application.



GASTIGHT AND WATERTIGHT FIRE BARRIER S 90



HSS 150/SEG/D/DG - fire protection for installation in HSI 150-K2/X cable entry

The HSS 150/SEG/D/DG fire barrier for walls is a gas- and watertight fire barrier meeting the requirements of fire resistance class S90 in accordance with DIN 4102-9 for installation in the HSI 150-K2 system. The seal is created with system covers. The barrier is approved for use with all types of cable in walls and for HSI 150 packages up to 2x6.

Approval number: Z-19.15-1906



HVS-KK 100 or HVS-KK 150 - fire protection kit for installation in core drills/wall sleeves

The fire-stop pads of the HVS-KK... fire barrier for core drills/wall sleeves up to Ø 100 or 150 mm are installed after the cables have been laid (the pads can be installed from one side). The barrier is approved for installation with all types of cable in walls. The HVS-KK meets the requirements of fire resistance class S90 to DIN 4102-9.

Approval number: Z-19.15-1792

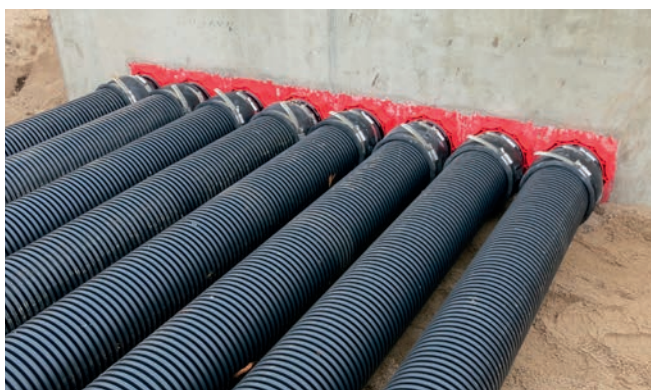
Cable sealing system 150

SYSTEM COVERS FOR CONNECTING CABLE DUCTS



HSI 150-M system cover with sleeve method

Smooth and corrugated cable ducts with an outer diameter of 110, 125 or 160 mm can be connected with the HSI 150-M system cover. The pipe is connected using a flexible and stable rubber sleeve, which is pressed against the system cover and the cable duct stainless steel clamping straps. Clip rings (for mechanical stabilisation) are also needed to connect corrugated pipes. They are positioned underneath the stainless steel clamping straps (quote the corrugated pipe type and manufacturer when placing your order). We recommend sealing the cable on the inside of the building for conduit connections.



HSI 150-D...-KS system cover with shrink sleeves

Quick and easy connection of corrugated cable ducts (Ø 110 and 125 mm) with a cold shrink sleeve. Including empty conduit routes enables problematic groundwork having to be carried out on the substation site at a later date.



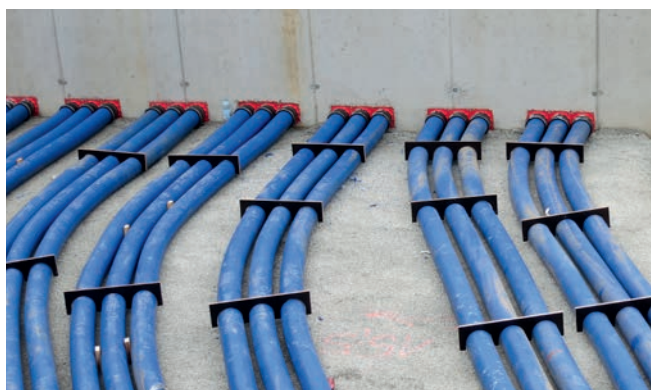
Cable sealing system 150

CABLE ENTRY SYSTEM



KES-M 150-D wall connection

The KES-M 150 cable entry system is the ideal solution for a pressure-tight, flexible and robust empty conduit system. The 14150 Hateflex spiral hose is connected to the HSI 150 wall insert in a gas- and watertight (2.5 bar) manner using the KES-M 150-D system cover with the sleeve method. Various seal variants are available to seal the cables at the end of the spiral hose.



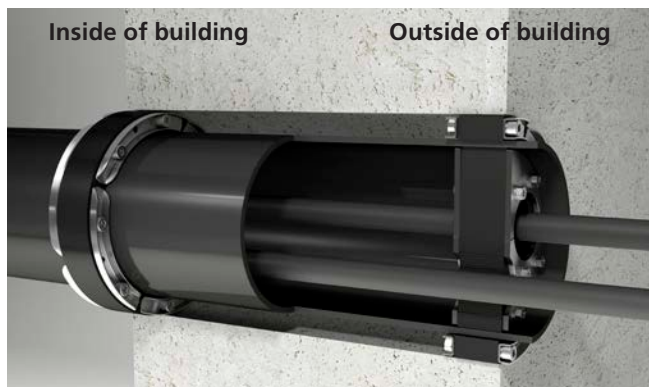
KES-M150-ZVR 150/500 floor entry

The KES-M150-ZVR 150/500 is used to create a gas- and watertight floor entry for the Hateflex spiral hose, whilst at the same time offering optimum fit for the press seal. Precise height adjustment to the level of the finished floor is achieved by cutting the ZVR to length once the concrete has been laid. HRD 150-SG... press seals, for example, are available for sealing cables in the ZVR.



Cable sealing system 150

CABLE ENTRY SYSTEM



Connection set for core drills/wall sleeves

KES-M 150-KB-Set

Sealing of a cable duct in waterproof concrete with two HSD 200/159 press seals on the outside and inside of the wall. The cable seal in the cable duct is made with an HRD 150-SG standard press seal on the inside of the building. With this solution, water can be present inside the cable duct but it cannot penetrate or damage the structure of the building. The spreading forces of the cable seal to which the cable duct is exposed are absorbed by the pipe seal.

Other variants on request



KES-M 150-M cable entry system

KES-M 150-M sleeves can be used to connect smooth ducts to the Hateflex spiral hose. This allows, combined with the cable entry system, a flexible installation of rigid ducts up to the connection to the building. This is for example helpful if you have to overcome a vertical height.



Cable entry system KES-M 150-WE 160-SG-z/d

A seal at the empty conduit end can be created with a sleeve and a split interchangeable insert matching the cables that have already been laid. The sleeve is installed before the cables are laid. The entire cross-section of the cable entry system is available when laying the cables.



STANDARD WALL SLEEVES AND FLANGES



Cement-coated wall sleeve ZVR

The ZVR is available in diameters from 80 – 300 mm. It is installed flush with the formwork. It can also be installed in wall cut-outs. The break-resistant and inherently stable plastic wall sleeve with cement-bound special coating provides the basis for an optimum connection to the concrete. All press seals can be used for sealing cables or pipes.



HRD-F dowel flange for retrofit installation on sheet steel, sheet metal casings or concreted walls

The leak-tight connection to the wall/casing is achieved using a 10-mm-thick surface seal made of EPDM. Made of stainless steel, the flange and fastening elements provide optimum protection against corrosion. All press seals can be installed for sealing cables or pipes. Dowel flanges are also custom-made to meet your specifications and can be installed over larger recesses/break-throughs, for example. Flanges with multiple pipe sockets and split flanges are also available.



Press seals

STANDARD PRESS SEALS AND SEALING SET



Standard press seal HSD

The HSD press seal is the ideal and cost-effective solution for sealing smooth cable ducts in core drills and wall sleeves. The incredibly stable stainless steel u-profile press segments with integrated torque control can be relied upon for an optimum press connection and offer outstanding protection against corrosion.



Sealing set for corrugated pipes ADS

The sealing set ADS is the ideal sealing solution for corrugated cable ducts. The patented clip rings can be relied upon to distribute the closing pressure evenly, thus ensuring a gentle seal without piercing through the seal rubber and into the grooves of the pipes. This effectively excludes the risk of deformations and damage to the corrugated pipe. The insulation ring included in the scope of supply centres the corrugated pipe and neatly finishes and insulates the wall connection. For cable sealing in the corrugated pipe, the HRD press seal must be positioned directly underneath the press seal of the sealing set in order to avoid deformations.



STANDARD PRESS SEALS



Standard press seal HRK-SSG

Already laid cables can be sealed in core drilled holes/ducts with the split HRK-SSG press seal. This ensures that the whole surface of the core drilled hole/ducts can be used during installation of the cables. Thanks to the super segmented ring technology the sealing can be adapted on site to the diameter of the cables. The inscription on the segments ensure a very high application security. Unoccupied openings are sealed with the blind plugs included in the scope of delivery. You can choose between the OD 100, 150 and 200 mm. The pressure plates are made of high quality glass fiber reinforced plastic and ensure thanks to the integrated form closure a maximum of stability and anti-twist. Bolts and nuts are made of stainless steel V2A (AISI 304L)



Standard press seal HRD-SG

The split press seal HRD-SG is used to seal cables that have already been laid through core drills/wall sleeves. This means that the entire cross-section of the wall sleeve/core drill is available when laying the cables. Thanks to the super segmented ring technology, the seal insert can be adjusted on site to correspond to the cables that have been laid. Unoccupied openings are sealed with the blind plugs included in the scope of delivery. Variants with outer diameters of 80, 100, 125, 150 and 200 mm are available. The press plates are made of high-quality V2A (AISI 304L) stainless steel.



Press seals

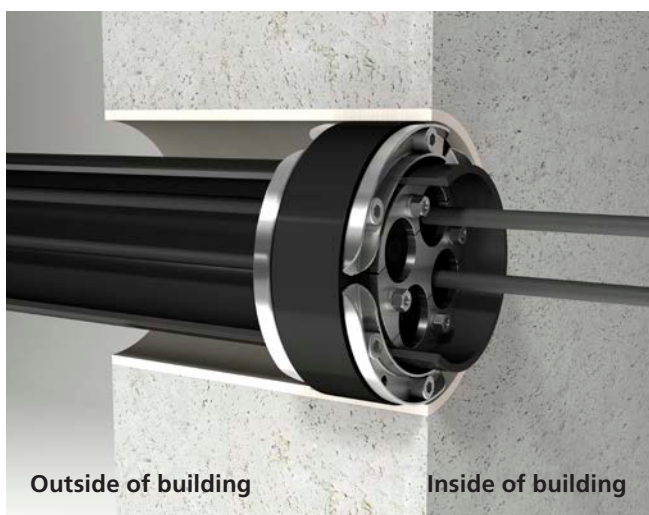
STANDARD PRESS SEALS



With duct connection - very thick walls

Sealing of a cable duct in waterproof concrete with two HSD 200/159 press seals on the outside and inside of the wall. The cable seal in the cable duct is made with an HRD 150-SG standard press seal on the inside of the building. With this solution, water can be present inside the cable duct but it cannot penetrate or damage the structure of the building. The spreading forces of the cable seal to which the cable duct is exposed are absorbed by the pipe seal.

Other variants on request



With duct connection - thin walls

Sealing of a cable duct with an HSD 150/110 press seal in the wall sleeve on the inside of the building. The cable seal in the cable duct is also made on the inside of the building. The cable inserted is sealed with an HRD 100-SG press seal. This solution provides the best possible seal for cable duct and cable. The spreading forces of the cable seal to which the cable duct is exposed are absorbed by the pipe seal. When using the sealing system for core drills in waterproof concrete, the seals must be positioned flush with the outside wall in order to prevent water ingress into the core drill.

Other variants on request



Without duct connection

Cable seal with a press seal in a core drill in waterproof concrete. To prevent water ingress into the core drill, the seal must be positioned on the outside wall.

The position of the cable seal can be selected at will when using wall sleeves.

WALL INSERTS AND FLANGE



HSI 150 – WALL INSERTS			
Item	Article code	Article number	Figure
Single wall insert for wall thickness > 70 mm	HSI 150-K/X	2140100XXX *1	
Double wall insert for wall thickness > 100 mm	HSI 150-K2/X	2140300XXX *1	
Double wall insert for element walls	HSI 150-K2-EW/X	2140304XXX *1	
Slanted wall insert for wall thickness > 240 mm	HSI 150-1xZ-K2 S30/X	2140303431	
Slanted wall insert for wall thickness > 250 mm	HSI 150-1xZ-K2 S45/X	2140303500	
Slanted wall insert for wall thickness > 300 mm	HSI 150-1xZ-K2 S60/X	2140303561	
Single wall insert with integrated plug-in sleeve Ø 110 mm for wall thickness > 120 mm	HSI 150-GSM 110/X *2	_ *1	
Single wall insert with integrated plug-in sleeve Ø 125 mm for wall thickness > 120 mm	HSI 150-GSM 125/X *2	_ *1	
Single wall insert with integrated plug-in sleeve Ø 160 mm for wall thickness > 180 mm - packages can only be created in conjunction with spacer	HSI 150-GSM 160/X	_ *1	
Spacer - set of 2 to increase the centre distance by 40 mm, enables HSI 150 to be packaged with HSI 90	HSI-AH 40	2101090010	

*1 Please find the article number for the exact wall thickness on www.hauff-technik.de
standard length: 70 up to 500 mm (gradation in 10 mm)

X = wall thickness in mm, S = installation angle in °
Z = number of entries next to one other

*2 Possible restrictions for cable configurations

Slanted wall inserts (30°, 45° and 60°); special solutions to DIN 18195 Part 6 are also available on request.

HSI 150 – PLASTIC FLANGE			
Item	Article code	Article number	Figure
Plastic flange incl. fastenings made of stainless steel V4A (AISI 316L) for concrete walls	HSI 150-DFK	2118010020	
Cartridge of 290 ml colour: grey elastic sealant to optimise wall surface when used with sealing flange	EGO MS-805	0505071621	

Cable sealing system 150

WALL INSERTS AND FLANGE

HSI 150 – CLOSING COVER

Item	Area of application cable/pipe Ø	Article code	Article number	Figure
System cover	Blind cover	HSI 150-D	2101100000	

HSI 150 – SYSTEM COVERS WITH HEAT SHRINK SLEEVES





Item	Area of application cable/pipe Ø	Article code	Article number	Figure
System cover with 1 socket incl. 1 x heat-shrink sleeve 1 x centering tape	25 – 78 mm	HSI 150-D1/80	2101100010	
System cover with 3 x sockets incl. 3 x heat-shrink sleeves 1 x centering tape	22 – 56 mm	HSI 150-D3/58	2101100049	
System cover with 7 x sockets incl. 7 x heat-shrink sleeves	12 – 31 mm	HSI 150-D7/33	2101100059	

Designs with cold shrink sleeves are available on request.




ACCESSORIES SYSTEM COVERS GENERALLY WITH SHRINK SLEEVES

Item	Article code	Article number	Figure
To seal unused sockets Sealing plug for system cover HSI 150-D7/33 (available as single unit or packing unit = 10 pcs)	VS 32/34	2140403234	
Sealing plug for system cover HSI 150-D3/58 (available as single unit or packing unit = 10 pcs)	VS 58/60	2140405860	
For centering and fixing the cables into the system cover sockets for optimal shrinking Centering tape – set of 3 pieces elastomer strips 30 x 430 mm	HSI-ZB	2102200700	
Flexible pin spanner	SLS 6G	0352010000	
Flexible pin spanner For installing and removing system covers in walls up to 100 mm with heat insulation	SLS 6GD	0352010100	

SYSTEM COVERS AND SYSTEM SEALS FOR CABLES






HSI 150-DG – SYSTEM COVERS FOR RETROFIT INSTALLATION				
Item	Area of application cable/pipe Ø	Article code	Article number	Figure
Split system cover with 1 opening incl. split adapter ring	36 – 70 mm	HSI 150-DG-1/36-70	2102200020	
Split system cover with 1 opening incl. split adapter ring	70 – 112 mm	HSI 150-DG-1/70-112	2102200030	
Split system cover with 3 openings incl. split adapter ring and 3 x blind plugs	24 – 54 mm	HSI 150-DG-3/24-54	2102200000	
Split system cover with 6 openings incl. split adapter ring and 6 x blind plugs	10 – 36 mm	HSI 150-DG-6/10-36	2102200010	


Included in the scope of delivery of each HSI 150-DG system cover: GM lubricating stick, cutter, cleaning cloth.




ACCESSORIES SPLIT SYSTEM COVER				
Item	Article code	Article number	Figure	
Tool for installation of system cover Torque wrench 4-20 Nm ¼ inch 1 adapter for cordless screwdriver, square end, ¼ inch 2 extensions, 150 mm ¼ inch 1 extension 100 mm, ¼ inch 1 wrench socket M6, AF 5, ¼ inch 1 wrench socket, M6, 100 mm with ball head, ¼ inch	HSI 150-DG-W	2102200600		
Press plate cover for HSI 150-DG-3/24-54 for protecting the threads against dirt	HSI 150-PA-3/24-54	2102200400		
Press plate cover for HSI 150-DG-6/10-36 for protecting the threads against dirt	HSI 150-PA-6/10-36	2102200410		

Cable sealing system 150




SYSTEM COVERS AND SYSTEM SEALS FOR CABLES

HSI 150 – SEGMENTO			
Item	Article code	Article number	Figure
System cover for inserting segments	HSI 150-S3	2300100000	
Violet segment: application range for 2 cables, Ø 20 – 31 mm incl. 2 blind plugs	SEG 2/31	2300130000	
Yellow segment: application range for 3 cables, Ø 20 – 26 mm incl. 3 blind plugs	SEG 3/26	2300140000	
Blue segment: application range for 6 cables, Ø 15 – 21 mm incl. 6 blind plugs	SEG 6/21	2300150000	
Orange segment: application range for 8 cables, Ø 5 – 15 mm incl. 8 blind plugs	SEG 8/15	2300160000	

COMBINATION KIT SEGMENTO			
Item	Article code	Article number	Figure
KKS combination kit for pressure-tight outside sealing of core drillings with a diameter of 150 mm consisting of: 1x plastic flange HSI 150-DFK with fastenings, 1x system cover HSI 150-S3, 3x selected segments SEG x/xx, 1x GMS lubricant, 1x installation instructions	KKS ordering example: KKS 338 comprise: 1x HSI 150-DFK, 1x HSI 150-S3, 2x SEG 3/26, 1x SEG 8/15, 1x GMS	—	


ACCESSORIES SEGMENTO			
Item	Article code	Article number	Figure
Torque screwdriver (1,2 Nm) SEGMENTO with acoustic signal	DMS	2300300000	
Special lubricant SEGMENTO 10 g	GMS	2300310000	
Assignment template SEGMENTO to determine the suitable segments according to the cable diameter	BSS	2300320000	

GASTIGHT AND WATERTIGHT FIRE BARRIER S 90


HVS/HSS – UNIVERSAL FIRE PROTECTION SEALING FOR HSI 150 CABLE ENTRY				
Item	Core drill/wall sleeve Ø	Article code	Article number	Figure
Gastight fire protection set in connection with HRD consisting of: fire-stop pads 2x HVS-K250, 3x HVS-KB-60, label, stainless steel belt	till Ø 100 mm	HSS-100-KB/FR-HRD	2600030002	
Gastight fire protection set in connection with HRD consisting of: fire-stop pads 2x HVS-K400, 3x HVS -K250, 3x HVS-KB-60, 1 x label, stainless steel belt	till Ø 150 mm	HSS-150-KB/FR-HRD	2600030003	
Approval no: Z-19.15-1906 – fire protection S 90, gastight / Approval no: Z-19.15-1792 – fire protection S 90				
Fire protection set consisting of: fire-stop pads 3x HVS -K250/2, 5x HVS-KB-60, 1x label, 2x stainless steel belts	till Ø 100 mm	HVS-KK 100	2600010005	
Fire protection set consisting of: fire-stop pads 2x HVS-K400, 5x HVS -K250/2, 6x HVS-KB-60, 1x label, 2x stainless steel belts	till Ø 150 mm	HVS-KK 150	2600010006	
Fire protection set consisting of: fire-stop pads 2x HVS-K720, 2x HVS-K400, 5x HVS -K250/2, 8x HVS-KB-60, 1x label, 4x stainless steel belts	till Ø 200 mm	HVS-KK 200	2600010007	
Delivery without HRD rubber press seal.				
Fitting panel, for close-fitting installation of HVS/HSS fire-stop pads		HVS/HSS-MB	2600024100	

Cable sealing system 150

SYSTEM COVERS FOR CONNECTING CABLE DUCTS

HSI 150 – SLEEVE METHOD FOR SMOOTH AND CORRUGATED PIPES				
Item	Pipe OD	Article code	Article number	Figure
System cover for smooth pipes	110 mm	HSI 150-M 110	2126010110	 <p>e.g HSI 150-M 140</p>
System cover for corrugated pipes incl. clip rings		HSI 150-M 110-WR*	for Kabuflex: 2126010113	
System cover for smooth pipes	125 mm	HSI 150-M 125	2126010125	
System cover for corrugated pipes incl. clip rings		HSI 150-M 125-WR*	for Kabuflex: 2126010007	
System cover for smooth pipes	140 mm	HSI 150-M 140	2126010140	
System cover for smooth pipes	160 mm	HSI 150-M 168	2126010000	
System cover for corrugated pipes incl. clip rings		HSI 150-M 168-WR*	for Kabuflex: 2126010001	




* For corrugated duct connections, clip rings CR are additionally required (please specify duct type and manufacturer in your order). For each pipe connection 2 profile sealing rings are necessary (available from the pipe manufacturer, to be provided on-site).

HSI 150 – COLD SHRINK SLEEVES FOR CORRUGATED PIPES				
Item	Pipe OD	Article code	Article number	Figure
System cover for corrugated pipes	110 mm	HSI 150-D 110-KS	2102100060	 <p>e.g HSI 150D 125-KS</p>
System cover for corrugated pipes	125 mm	HSI 150-D 125-KS	2102100070	


ACCESSORIES REPLACEMENT COLD SHRINK SLEEVES				
Item	Article code	Article number	Figure	
Replacement shrink-fit sleeves for HSI 150-D 110-KS	KS 223.119.56	0311031201	 <p>e.g KS 240.154.76</p>	
Cement shrink-fit sleeves for HSI 150-D 125-KS	KS 240.154.76	0311031000		



Cable sealing system 150

CABLE ENTRY SYSTEM

KES-M 150 – CABLE ENTRY SYSTEMS			
Item	Article code	Article number	Figure
System cover for the pressure-tight connection of Hateflex 14150 spiral hose to HSI 150 wall insert	KES-M 150-D	2125810000	
Floor entry, cement-coated wall sleeve ID = 150 mm with sleeve for the pressure-tight connection of Hateflex 14150 for floor entries	KES-M150-ZVR 150/500	2125502000	
Connection set for core drill/wall sleeves inclusive 2 press seals for connecting the Hateflex spiral hose 14150 to core drills Ø 200 mm. max. wallthickness 500 mm *	KES-M 150-KB-Set	2125818500	



*For corrugated duct connections, clip rings CR are additionally required (please specify duct type and manufacturer in your order). For each pipe connection 2 profile sealing rings are necessary (available from the pipe manufacturer, to be provided on-site).

SPIRAL HOSE WITH SMOOTH INNER SURFACE, FOR GENTLE CABLE FEEDING ID = 150 MM MINIMUM LENGTH 1000 MM, AVAILABLE IN 500 MM INCREMENTS			
Length (m)	Article code	Article number	Figure
2	Hateflex 14150/2000	2130000200	
3	Hateflex 14150/3000	2130000300	
4	Hateflex 14150/4000	2130000400	
5	Hateflex 14150/5000	2130000500	
6	Hateflex 14150/6000	2130000600	
8	Hateflex 14150/8000	2130000800	
10	Hateflex 14150/10000	2130001000	
12	Hateflex 14150/12000	2130001200	
15	Hateflex 14150/15000	2130001500	
18	Hateflex 14150/18000	2130001800	
20	Hateflex 14150/20000	2130002000	
25	Hateflex 14150/25000	2130002500	

ACCESSORIES CABLE SEALING SYSTEM – FLOOR ENTRY			
Item	Article code	Article number	Figure
Installation fixture KES-M ZVR-FUBO-Fix C-rack (length 1100 mm) with 4 adjustable earth spikes	KES-M ZVR-FUBO-FIX	1900500165	
Fastening bow for Ø 160 mm suitable for fixing the KES-M 150-ZVR150/500 to the installation fixture, including fixing elements (max. 4 pieces in a row possible)	Befestigungsbogen für KES-M ZVR-FUBO-FIX	1900500167	

Cable sealing system 150

CABLE ENTRY SYSTEM

KES-M 150 – CABLE ENTRY SYSTEM			
Item	Article code	Article number	Figure
Sealing set sleeve KES-M 150-WE including interchangeable insert with segmented ring technology for sealing cables at the end of the spiral hose Hateflex 14150: of 1 cable, Ø 48 - 83 mm or 3 cables, Ø 22 - 54 mm or 6 cables, Ø 8-36 mm (installation before cables are pulled through) inclusive blind plug	KES-M 150 WE160-SG-1/48-83	2125817103	 e.g. KES-M 150 WE160-SG-6/8-36
	KES-M 150 WE160-SG-3/22-54	2125817102	
	KES-M 150 WE160-SG-6/8-36	2125817101	
Sleeve to be used with interchangeable insert WE 160-z/d to seal cables on end of spiral hose Hateflex 14150 (installation before cables are pulled through)	KES-M 150-WE	2125817100	
Split interchangeable insert with segmented ring technology for installation in sleeve KES-M 150-WE for sealing: of 1 cable, Ø 48 - 83 mm or 3 cables, Ø 22 - 54 mm or 6 cables, Ø 8-36 mm inclusive blind plug	WE 160-SG-1/48-83	0825817116	 e.g. WE 160-SG-3/22-54
	WE 160-SG-3/22-54	0825817115	
	WE 160-SG-6/8-36	0825817114	
Interchangeable insert to be used with sleeve KES-M 150-WE customized according to cables to be installed z= number of cables d= cable diameter	WE 160-z/d	2125817110	

Cable sealing system 150

CABLE ENTRY SYSTEM

CABLE ENTRY SYSTEMS			
Item	Article code	Article number	Figure
Connection sleeve for connecting rigid cable ducts OD = 110 mm* to spiral hose Hateflex 14150	KES-M 150-M 110	2125814000	–
Connection sleeve for connecting rigid cable ducts OD = 125 mm* to spiral hose Hateflex 14150	KES-M 150-M 125	2125813000	–
Connection sleeve for hose extension / connection of Hateflex 14150	KES-M 150 HTV	2128020000	
Connection sleeve for connecting rigid cable ducts OD = 160 mm* to spiral hose Hateflex 14150	KES-M 150-M 160	2125812000	
1 set of clip rings to stabilize the corrugated pipe within the sleeve (kindly indicate pipe manufacturer and pipe type in your order)	CR 110	for Kabuflex: 1630001730	
1 set of clip rings to stabilize the corrugated pipe within the sleeve (kindly indicate pipe manufacturer and pipe type in your order)	CR 125	for Kabuflex: 1630001750	
1 set of clip rings to stabilize the corrugated pipe within the sleeve (kindly indicate pipe manufacturer and pipe type in your order)	CR 160	for Kabuflex: 1630001770	
Rigid pipe section OD = 160 mm with sleeve for connection to spiral hose Hateflex 14150 (tight wall sealing in core drillings when used together with HRD press seals).	KES-M 150-R 160	2125818000	
Spacer 2x3 for positioning of hose packages with Hateflex 14150	KES 150-2x3 KA	2101090200	
Tool set for pressure-tight strap assembly, consisting of 1 torque 4-20 Nm, ¼ inch, 1 extension 150 mm, ¼ inch, 1 socket for hexagon spanner SW 13, ¼ inch 1 socket for hexagon spanner SW 8, ¼ inch	KES-M-W	2128030000	

* additional clip rings CR are necessary to connect corrugated pipes
For each pipe connection 2 profile sealing rings are necessary (available from the pipe manufacturer, to be provided on-site).

Wall sleeves

WALL SLEEVES AND FLANGES

ZVR – STANDARD WALL SLEEVE

Item	Article code	Article number	Figure
Cement-coated wall sleeve ID 80 mm	ZVR 80/X	1200080XXX *	
Cement-coated wall sleeve ID 100 mm	ZVR 100/X	1200100XXX *	
Cement-coated wall sleeve ID 125 mm	ZVR 125/X	1200125XXX *	
Cement-coated wall sleeve ID 150 mm	ZVR 150/X	1200150XXX *	
Cement-coated wall sleeve ID 200 mm	ZVR 200/X	1200200XXX *	

* Please complete article number as appropriate:

XXX = wall thickness in mm

Standard lengths: 200, 240, 250, 300, 365, 400, 500 mm

X = wall thickness in mm


The cement-coated wall sleeve is coated at each end with 250 mm at lengths > 600 mm.

HRD FLANGE CLOSED FOR RETROFIT DOWELLING

Item	Wall sleeve wall thickness	Standard flange dimensions □ or Ø	Article code	Article number	Figure
Stainless steel flange closed ID 80 mm	2 mm	170 mm (□)	HRD 80-F	0910820000	
Stainless steel flange closed ID 100 mm	2 mm	180 mm (□)	HRD 100-F	0910830000	
Stainless steel flange closed ID 125 mm	2 mm	205 mm (□)	HRD 125-F	0910840000	
Stainless steel flange closed ID 150 mm	2 mm	225 mm (□)	HRD 150-F	0910850000	
Stainless steel flange closed ID 200 mm	3 mm	270 mm (□)	HRD 200-F	0910870000	


STANDARD PRESS SEALS

HRK-SSG – UNIVERSAL SEAL FOR CABLE WITH SUPER SEGMENTED RING TECHNOLOGY

Core drill/ wall sleeve Ø	Number of cables	Cable Ø	Article code	Article number	Figure
100 (available as single unit or packing unit = 9 pcs)	1	18 – 65 mm	HRK 100-SSG-1/18-65	1600101610	 <p>e.g. HRK 150-SSG-3/24-54</p>
	4	8 – 30 mm	HRK 100-SSG-4/8-30	1600101600	
150 (available as single unit or packing unit = 8 pcs)	1	36 – 70 mm	HRK 150-SSG-1/36-70 *	1600101650	
	1	70 – 112 mm	HRK 150-SSG-1/70-112 *	1600101660	
	3	24 – 54 mm	HRK 150-SSG-3/24-54	1600101630	
	6	10 – 36 mm	HRK 150-SSG-6/10-36	1600101640	
200 (available as single unit or packing unit = 8 pcs)	1	110 – 162 mm	HRK 200-SSG-1/110-162 *	1600101670	
	3	40 – 72 mm	HRK 200-SSG-3/40-72	1600101665	


* without plugs


HRD-SG – UNIVERSAL SEAL FOR CABLE WITH SEGMENTED RING TECHNOLOGY

Core drill/ wall sleeve Ø	Number of cables	Cable Ø	Article code	Article number	Figure	
80	1	6 – 41 mm	HRD 80-SG-1/6-41	2700100108	 <p>e.g. HRD 200-SG-3/ 6-54-4/6-26</p>	
100	8	4 – 16,5 mm	HRD 100-SG-8/4-16,5	2700103000		
	5	8 – 30 mm	HRD 100-SG-2/8-30-3/4-16,5	2700103500		
	of which 2					
	of which 3					
104	1	24 – 52 mm				HRD 104-SG-1/24-52
104	4	8 – 30 mm	HRD 104-SG-4/8-30	2700103610		
	8	4 – 16,5 mm	HRD 104-SG-8/4-16,5	2700103620		
	125	3	10 – 40 mm	HRD 125-SG-3/10-40		2700103750
125	6	6 – 31 mm	HRD 125-SG-6/6-31	2700103800		
	10	4 – 16,5 mm	HRD 125-SG-10/4-16,5	2700103850		
	150	9	6 – 25 mm	HRD 150-SG-9/6-25		2700106000
150	10	8 – 30 mm	HRD 150-SG-4/8-30-6/4-16,5	2700106500		
	of which 4					
	of which 6					
	of which 6					
200	7	6 – 54 mm	HRD 200-SG-3/6-54-4/6-26	2700107000		
	of which 3					
	of which 4					
	15	10 – 32 mm				HRD 200-SG-7/10-32-8/3,5-16,5
	of which 7					
	of which 8					
of which 8	3,5 – 16,5 mm					

Press seals for cable duct connection

STANDARD PRESS SEALS AND SEALING SET

HSD – STANDARD PRESS SEAL					
Core drill/ wall sleeve ID	Suitable for media pipe Ø		Sealing width 40 mm Article code	Article number	Figure
	from	to			
100 mm	32 mm	34 mm	HSD 100/32-V2A/EPDM	1650010032	
	40 mm	43 mm	HSD 100/40-V2A/EPDM	1650010040	
	48 mm	51 mm	HSD 100/48-V2A/EPDM	1650010048	
	60 mm	63,5 mm	HSD 100/60-V2A/EPDM	1650010060	
125 mm	60 mm	63,5 mm	HSD 125/60-V2A/EPDM	1650012060	
	75 mm	77 mm	HSD 125/75-V2A/EPDM	1650012075	
	78 mm	81 mm	HSD 125/78-V2A/EPDM	1650012085	
150 mm	78 mm	81 mm	HSD 150/78-V2A/EPDM	1650015078	
	88 mm	92 mm	HSD 150/88-V2A/EPDM	1650015088	
	110 mm	113 mm	HSD 150/110-V2A/EPDM	1650015110	
200 mm	110 mm	113 mm	HSD 200/110-V2A/EPDM	1650020100	
	114 mm	119 mm	HSD 200/114-V2A/EPDM	1650020110	
	125 mm	128 mm	HSD 200/125-V2A/EPDM	1650020120	
	133 mm	136 mm	HSD 200/133-V2A/EPDM	1650020130	
	139 mm	141 mm	HSD 200/139-V2A/EPDM	1650020140	
	159 mm	163 mm	HSD 200/159-V2A/EPDM	1650020150	

ADS – SEALING SET FOR CORRUGATED PIPES			
Core drill/wall sleeve ID	Article code	Article number	Figure
100 mm	ADS 100/63 – pipe type/pipe manufacturer	–	
125 mm	ADS 125/63 – pipe type/pipe manufacturer	–	
	ADS 125/75 – pipe type/pipe manufacturer	–	
150 mm	ADS 150/75 – pipe type/pipe manufacturer	–	
	ADS 150/90 – pipe type/pipe manufacturer	–	
	ADS 150/110 – pipe type/pipe manufacturer	–	
200 mm	ADS 200/110 – pipe type/pipe manufacturer	–	
	ADS 200/125 – pipe type/pipe manufacturer	–	
	ADS 200/145 – pipe type/pipe manufacturer	–	
	ADS 200/160 – pipe type/pipe manufacturer	–	
250 mm	ADS 250/160 – pipe type/pipe manufacturer	–	
	ADS 250/175 – pipe type/pipe manufacturer	–	
	ADS 250/200 – pipe type/pipe manufacturer	–	

