

## Manhole seal CSD-Plus-3

The seal is prelubricated ex factory, has an integrated load transfer element filled with silica sand and seals joints to 100 percent - thus providing for permanent and trouble-free application in manhole constructions according to EN 1917 and DIN V 4034-1.

### PLUS "prelubricated"

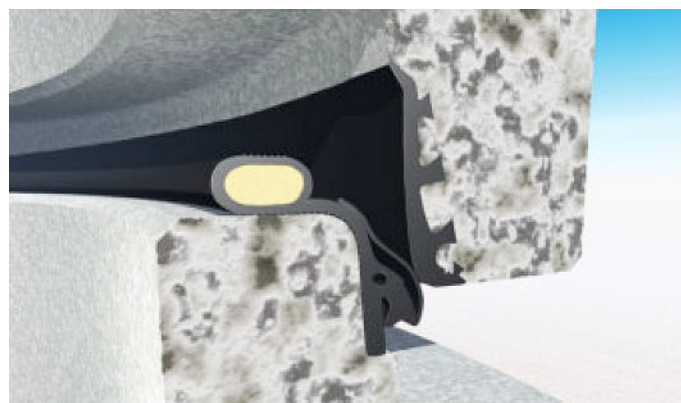
- The seal **CSD-PLUS-3** is prelubricated ex factory.
- It is not required to apply any lubricant on site.
- No more working under floating loads.
- Incorrect handling of lubricant is prevented.
- The slide mantle protects the primary seal against damage.
- Lateral load limiting through the slide mantle.
- Reduced friction and strain ensure larger sealing surface.

### PLUS "load transfer"

- The **CSD-PLUS-3** complies with the even, inelastic vertical load transfer required by DIN V 4034-1. This is ensured by the integrated load transfer element filled with fine silica sand.
- Additional works to provide for load transfer are not required anymore.
- Faulty or lacking load transfer is thus excluded.
- Sealing and load transfer element form a technical unit.
- Mounting of seal and load transfer element in one work step.

### PLUS "joint seal"

- Full-faced joint seal of the interior manhole joint by the integrated load transfer element.
- The installation of the seal can be inspected at any time through the load transfer element.
- The joint seal protects the primary seal against e.g. harmful substances, microorganisms, etc..



The **CSD-PLUS-3** can be combined with the integrated socket profile **MKP-97**, which additionally lines the sockets sealing surface.

### Field assembly

The seal will be fitted on the spigot before the manhole is assembled. It is prelubricated ex factory and ready for assembly. There is no need for any additional load transfer elements as required by DIN 4034-1, since the load transfer system is already integrated in the seal. When the seal is installed on the spigot, the load transfer element will automatically reach its correct position.

Dangerous working under floating loads is not required anymore!

### Material

The gaskets are made of Ethylene-Propylene-Diene rubber (EPDM) or Styrene rubber (SBR). Due to their outstanding properties the use of EPDM and SBR has proven to be successful in the field of rainwater and wastewater.

**Please note:** We recommend using seals made of Nitrile-Butadiene rubber (NBR) for applications involving mineral fuels such as oils, petrol or similar.



The **CSD-PLUS-3** seals are subject to constant third-party inspection by independent testing institutions. They comply with the requirements of EN 1917, EN 681-1, OR 4060 (FBS quality guideline) and other applicable quality standards.

The safe, inelastic transfer of vertical loads is inspected and confirmed by a recognised testing institute.

The water tightness is 1 bar.

The prefabricated manhole parts as per DIN are exchangeable.

The seals are exchangeable as well and reusable.

Investments in new pallet rings and similar tools are not required, available tools can be used.

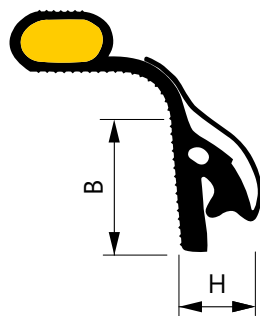
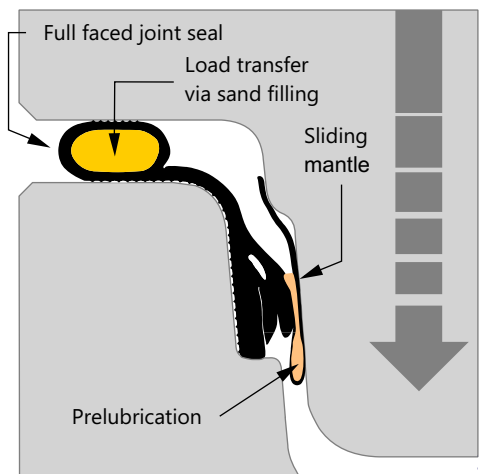
The manhole rings are stackable irrespective of the sealing system, therefore this system provides for constant, cost-efficient storage and transport of the pre-fabricated manhole parts.

The production is possible without keeping seals in stock.

The seal can be combined with the integrated socket profile **MKP- 97**, which additionally lines the sockets sealing surface.



The **CSD-PLUS-3** seal will often be combined with the **MKP-97 socket profile**, which provides additional protection for the socket contact area while assembly in takes place.



## CSD-Plus-3

DN	H*	B	Mean socket gap size as per <b>DIN V 4034-1</b>	
			w	
800 - 1000	20.2	29.0	11.5 ± 1.5	
1200	24.0	35.0	13.5 ± 2.0	
=1500	27.5	40.0	16.0 ± 2.5	
* effective seal height				

We can also produce special sizes upon request. Please call us or send us an e-mail.

Contents such as technical specifications, values, and dimensions are given to the best of our knowledge, however, without any guarantee and liability. If not specified otherwise, dimensions are given in millimetres. Our General Terms and Conditions shall apply.

