PRODUCT DATA SHEET

DS BS 2000

DS BS 2000 is a sealing ring made of elastomers with dense structure for the plug-in socket for manhole rings made from concrete and reinforced concrete with standard spigot end according to DIN V 4034-1. The sealing means is firmly fixed to the socket during manufacture of the chamber components

- DS BS 2000 is in accordance with the requirements of DIN EN 681-1 / DIN 4060 (seals made from elastomers) and the FBS quality guideline.
- DS BS 2000 manhole pipe connections fulfill, concerning durability, the criteria of DIN EN 1916, method 1.
- DS BS 2000 can easily be connected to the shaft component:
  DS BS 2000 is mounted on the socket end and anchored on concreting of the chamber components in the socket. After pulling the socket end the plug-in socket is ready for installation.
- DS BS 2000 is suitable for the conventional shaft component manufacturing equipment.
- DS BS 2000 requires special socket ends that determine the seat of the seal by their shape.
- DS BS 2000 is available in 3 profiles cross sections for manholes DN 800, DN 1000, DN 1200, DN 1500 & larger.
- DS BS 2000 lines the inner wall of the shaft component socket to the socket face. This prevents deposits of dirt or water (ice formation) behind the seal.
- DS BS 2000 forms a structural unit with the chamber components that allows a fast and secure shifting. The wedge shape of the sealing body eases the centering of the components.

Tested and quality controlled by MPA Berlin-Brandenburg.

SPECIAL ADVANTAGES

- fits to the generally existing shaft component spigot end with shoulder according to DIN V 4034-1.
- forms for the spigot end do not need to be procured.
- double inventory for manhole bases is unnecessary.

MATERIAL

DS BS 2000 is produced from styrene-butadiene rubber (SBR), hardness 45±5 and 50±5 IRHD The material resists the usual stresses caused by sewage.

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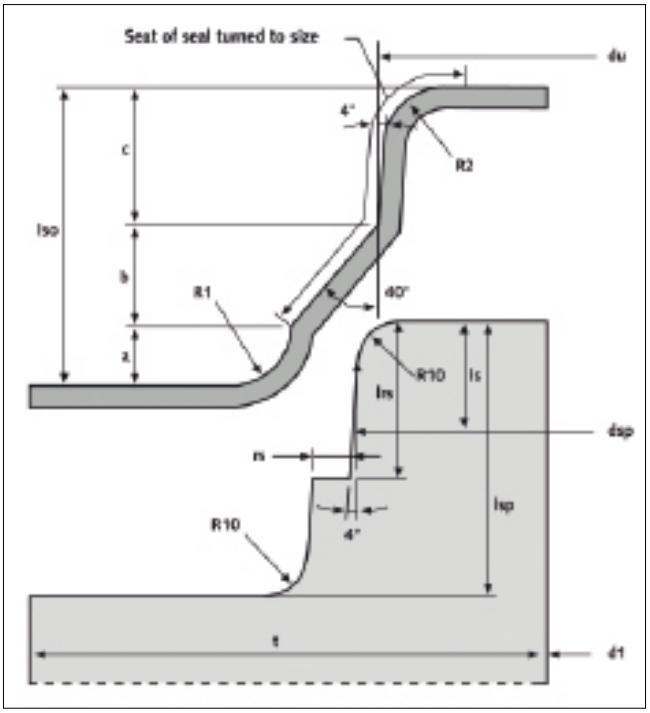
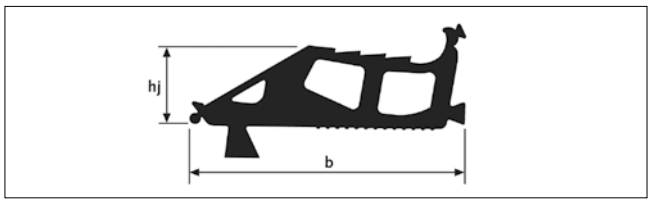
MANHOLE COMPONENT REQUIREMENTS
(All dimensions in mm)

- Manhole rings must comply with the requirements of DIN EN 1917 and DIN 4034-1.
- DS BS 2000 requires finely dimensioned smooth manhole ring spigot ends. When producing, inner and outer supporting rings and assistant socket must be used, to ensure compliance with spigot end diameters dsp shown in the table.
- DS BS 2000 needs – because of their small sealing width – manhole elements with smooth and – concerning the height – very exactly produced spigot ends.



DIMENSIONING OF THE SEALING RING
(All dimensions in mm)

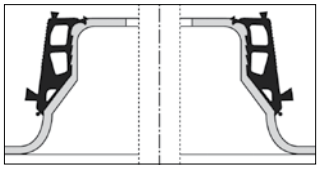


DN = d1	Profiltyp	b	hj -0,4 / +1,2	w *)
800, 1000	DS BS 2000 18,5	70,1	18,5	12,5
1200	DS BS 2000 22	79,3	22,0	14,3
1500 **	DS BS 2000 25,5	86,4	25,5	17,2

w*) socket gap width: gap between spigot end and socket in the main sealing area, mean value of deformation 32.5% resp. 35%

**) and larger

PRODUCTION OF DS BS 2000 PLUG-IN SOCKET WITH MANHOLE RINGS



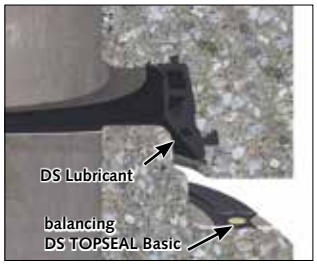
- Mount BS 2000 on the cleaned and lightly oiled base ring. Ensure correct seating and even pre-stretching of the sealing ring.
- Before compaction fill the socket with concrete so that the seal is covered evenly by 10 cm. Then produce concrete manhole ring in the usual manner.
- After removal of the manhole ring mould, place inner and outer supporting rings on the spigot end – pressing inner ring so that the concrete is pressed against the outer support ring – and leave them there until concrete has cured.
- Pull base ring centrically, remove supporting rings.
- After the concrete has fully cured DS BS 2000 plug-in socket is ready for installation.

Manhole		Base ring								Sipgot end					
DN = d1	t	lso	a	b	c + 0,5	du ± 0,5	du ± 0,7	R1	R2	lsp	lrs	ts	h	dsp	Concrete Tolerance dsp (recom./limit value)
800	120	70	13,87	24,13	32	878		14	14	65 -0/ +2	37	26	8	890	± 1,5 / (± 2,0)
1000	120	70	13,87	24,13	32	1078		14	14	65 -0/ +2	37	26	8	1090	± 1,5 / (± 2,0)
1200	135	80	16	28	36		1284,7	16	14	75 -0/ +3	45	32	9	1300	± 2,0 / (± 3,0)
1500	150	90	14	32	44		1603,5	14	14	85 -0/ +3	53	36	9	1620	± 2,5 / (± 3,5)

INSTALLATION TIPS

DS BS 2000 manhole ring connections can be mounted without any problems using normal construction site equipment. When mounting the manhole ring observe the following:

- Socket area and spigot end must be clean.
- Cover thoroughly the spigot end with DS lubricant. The additional use of lubricant on the seal is recommended as this reduces the mounting forces.
- Insert load balancing (z. B. DS TOPSEAL Basic).
- Insert the next manhole ring centrically and vertically and let it slide downwards. If necessary push slightly



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