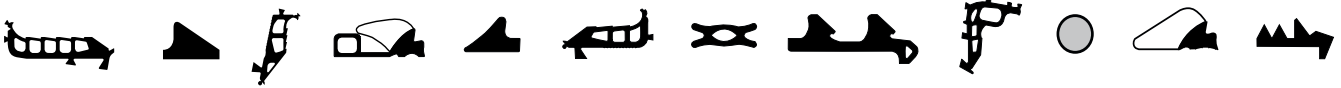


PRODUCT DATA SHEET DS BL-S



DS BL-S is a sealing ring made from elastomers with dense structure for concrete and reinforced concrete manhole rings according to DIN EN 1917 and DIN V 4034-1. The seal is firmly embedded in the socket during manufacture of the manhole ring.

- DS BL-S is in accordance with the requirements of EN 681 -1 / DIN 4060 [88] – seals made from elastomers – and the FBS quality guideline.
- DS BL-S manhole pipe connections fulfill, concerning durability, the criteria of DIN EN 1916, method 1.
- DS BL-S can easily be connected with the manhole ring. It is mounted on the base ring and is anchored during manufacture of the manhole section in the socket. After removal of the base ring, the socket is ready for installation.
- DS BL-S requires special base rings which determine by their shape the seat of the seal.
- DS BL-S can be supplied in 2 specific cross sections, one for DN 800 and DN 1000. The other for DN 1200 and 1500 or higher (versions up to DN 2400).
- DS BL-S lines the inner wall of the socket up to the socket face. This prevents deposits of dirt and water (ice formation) behind the seal.
- DS BL-S forms a unity with the manhole ring, which allows a quick and secure mounting. The wedge-shape of the seal body eases the centering of the segments.
- DS BL-S seals over the whole depth of the socket and length of the spigot end. So a high water tightness security is achieved.

**Tested and quality controlled
by MPA Berlin-Brandenburg.**

SPECIAL ADVANTAGES

- wide sealing area, therefore high sealing security.

MATERIAL

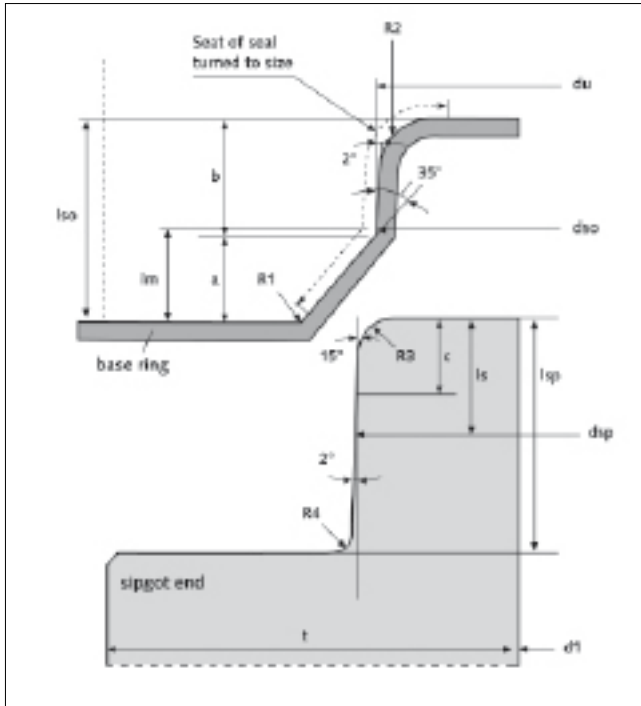
DS BL-S is produced from styrene butadiene rubber (SBR), hardness 50±5 IRHD. The material resists the usual stresses caused by sewage.



MANHOLE COMPONENT REQUIREMENTS

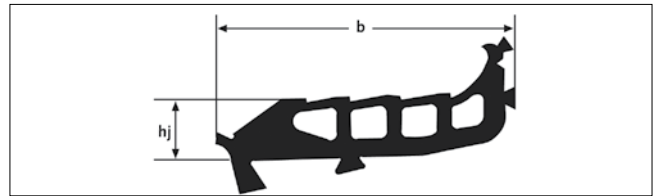
(All dimensions in mm)

- z Manhole rings must comply with the requirements of the DIN EN 1917 and the DIN V 4034-1.
- z DS BL-S requires finely dimensioned smooth manhole ring spigot ends. When producing inner and outer supporting rings must be used to ensure compliance with spigot end diameters dsp shown in the table.



DIMENSIONING OF THE SEALING RING

(All dimensions in mm)



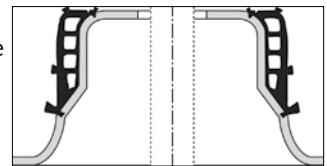
DN = d1	Profiltyp	b	hj -0,4 / +1,2	w *)
800, 1000	BL-S 14	70,0	14	10
1200, 1500 **	BL-S 18	81,0	18	12,9

w*) socket gap width = gap between spigot end and socket in the main sealing area.

***) and larger

PRODUCING OF MANHOLE RINGS WITH DS BL-S

- Mount DS BL-S on the cleaned and lightly oiled base ring. Ensure correct seating and 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 normal manner.
- After removal of the manhole ring mould, place outer supporting ring on the spigot end and press the inner supporting ring so that the concrete is pressed against the outer support ring. Leave them there until concrete has cured.
- Remove supporting rings and pull base ring.
- After the concrete has fully cured DS BL-S plug-in socket manhole ring is ready for installation.



Manhole	Basic ring								Spigot end								
	DN = d1	t	lso	a	b +0,5	lm	du	dM	R1	R2	lsp	ls	dsp	Tolerance dsp outer support.	Concrete dsp recom. / (Limit value)	c	R3
800	120	75	26	49	28	882,0	881,8 ± 0,5	10	13	70	42	890	± 0,6	± 1,0 / (± 1,5)	20	13	10
1000	120	75	26	49	28	1082,0	1081,8 ± 0,5	10	13	70	42	1090	± 0,6	± 1,0 / (± 1,5)	20	13	10
1200	135	85	30,6	54,4	34	1289,8	1289,6 ± 0,7	15	15	80	46	1300	± 0,8	± 1,5 / (± 2,0)	20	15	10
1500 u.	150	90	35,6	54,4	39	1609,8	1609,6 ± 0,7	15	15	85	46	1620	± 0,8	± 1,5 / (± 2,0)	20	15	10
larger						d1 + 109,8	d1 + 109,6 ± 0,7					d1 + 120					

INSTALLATION TIPS

DS BL-S 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.
- Install the load balancing (e.g. DS TOPSEAL Basic).
- Hang on next manhole ring centrally and vertically and let it slide upwards. If necessary push slightly.



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DS⁺
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