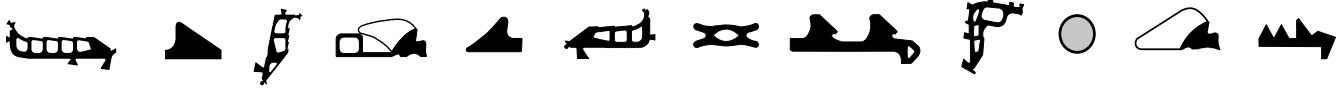
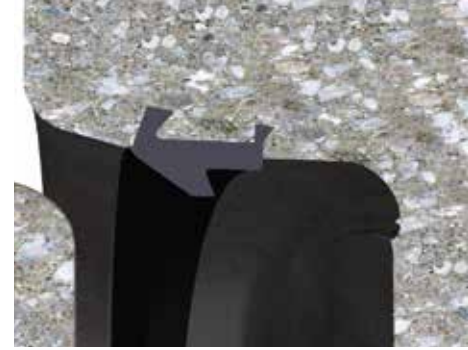


PRODUCT DATA SHEET  
**DS ANKER L & DS BZ-T**



DS ANKER L and DS BZ-T are sealing rings made from elastomers with dense structure for reinforced concrete pipes according to DIN EN 1916 and DIN V 1201. The seals are firmly embedded in the socket during manufacture of the pipe.

- DS ANKER L und DS BZ-T are in accordance with the requirements of DIN EN 681-1 / DIN 4060 [88] (seals made from elastomers) and the FBS quality guideline.
- DS ANKER L und DS BZ-T pipe connections fulfill, concerning durability, the criteria of DIN EN 1916, method 1-4.
- DS ANKER L und DS BZ-T can be easily connected with the pipe:  
Seal and formwork ring are mounted on the base ring. During concreting of the pipe, the sealing ring is anchored in the sleeve by two holding parts. The formwork ring is removed the next day and can be reused 10 - 20 times.
- DS ANKER L and DS BZ-T can be used for all pipe production machines with core vibration and radial pressure roller head.
- DS ANKER L and DS BZ-T require special base rings which determine by their shape the seat of the seal.
- DS ANKER L and DS BZ-T can be supplied for pipes DN 300 to DN 2000 in 4 specific cross sections.
- DS ANKER L and DS BZ-T pipe connections resist high shearing forces.

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

### SPECIAL ADVANTAGES

- Consist out of a double anchored seal (DS ANKER L or DS BZ-T) and a reusable form ring belonging to it.
- Form an integrated unit together with the pipe which allows a quick and safe installation.
- The wedge shape of the seal body facilitates the pipe centering.

### MATERIAL

The sealing rings are generally manufactured from styrene-butadiene rubber (SBR). The ANKER seals are produced at hardness  $50 \pm 5$  IRHD; the BZ-R seals at a hardness of  $40 \pm 5$  IRHD. The material resists the usual stresses caused by sewage. In case of content of light liquids (oil, petrol, fuels) in the sewage water it is recommended to use seals out of acryl-nitrile-butadiene-rubber (NBR), which has a higher resistance against light liquids.

QR 4060

MPA  
BERLIN-BRANDENBURG

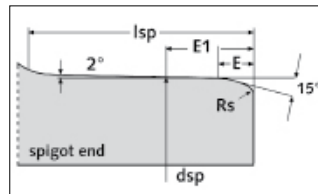
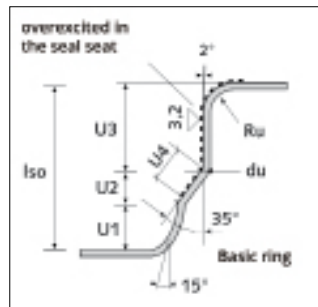


CE

**DS**<sup>+</sup>  
DICHTUNGSTECHNIK

## PIPE REQUIREMENTS (all dimensions in mm)

- Reinforced concrete pipes must comply with the requirements of DIN EN 1916 and DIN V 1201.
- DS ANKER L and DS® BZ-T require finely dimensioned smooth pipe spigot ends. When producing the pipes inner and outer supporting rings must be used to ensure compliance with spigot end diameters dsp shown in the table.
- The seal seat and the socket diameter at the built-in seal must be checked regularly.



## BASE RING

DN	Iso	U1	U2	U3 -0/+0,5	U4 min	Ru	du	Tolerance du
300	100	22	17	61	19	13	416,34	-0/+0,5
400	-	-	-	-	-	-	516,34	-
500	-	-	-	-	-	-	616,34	-
600	-	-	-	-	-	-	716,34	-
700	120	22,6	23	74,4	26	16	831,7	-0,5/+0,5
800	-	-	-	-	-	-	949,7	-
900	-	-	-	-	-	-	1067,7	-
1000	-	-	-	-	-	-	1185,7	-
1100	130	25	28	77	32	17	1300,8	-0,7/+0,7
1200	-	-	-	-	-	-	1418,8	-
1300	-	-	-	-	-	-	1536,8	-
1400	-	-	-	-	-	-	1654,8	-
1500	-	-	-	-	-	-	1772,8	-
1600 -2000	155	30	35	90	41	19	dsp+2w-2hj	-0,8/+0,8

## SPIGOT END

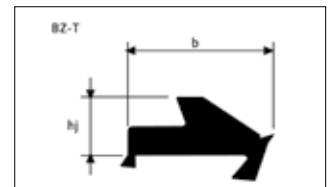
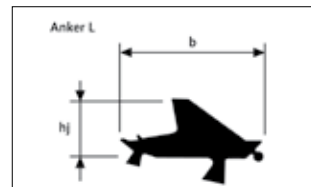
DN	E	Rs	lsp	E1	dsp	Tolerance dsp Recom. (extreme value*)
300	20	13	105	49	426	-0,9/+1,4 (-1,9/+2,4)
400	-	-	-	-	526	-
500	-	-	-	-	626	-
600	-	-	-	-	726	-
700	28	15	125	61	844	-1,3/+1,3 (-2,6/+2,6)
800	-	-	-	-	962	-
900	-	-	-	-	1080	-
1000	-	-	-	-	1198	-
1100	28	16	135	63	1316	-1,5/+1,5 (-3,0/+3,0)
1200	-	-	-	-	1434	-
1300	-	-	-	-	1552	-
1400	-	-	-	-	1670	-
1500	-	-	-	-	1788	-
1600 -2000	30	18	160	76	variabel	-1,8/+1,8 (-3,6/+3,6)

Larger DN on request

- Recom. concrete tolerance: sealing ring deformation 30% to 40%,
- Extreme sealing ring deformation due to concrete tolerances 26.5% to 43.5%\*
- \*) With milled spigot ends recommended deformation is equal to extreme tolerance value

## DIMENSIONING OF THE SEALING RING

(all dimensions in mm)



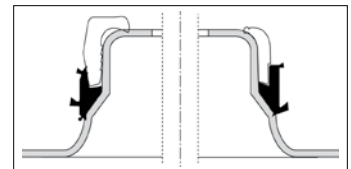
DN	Profile type		b		hj **)	w *)
	DS ANKER L	DS BZ-T				
300-600	ANKER L 14	BZ-T 14	37,1	33,2	14	9,1
700-1000	ANKER L 18	BZ-T 18	43,1	45,7	18	11,7
1100-1500	ANKER L 22	BZ-T 22	52,7	50,4	22	14,3
1600-2000	ANKER L 26	BZ-R 26	62,2	59,3	26	16,9

\*) Socket gap width: gap between spigot end and socket in the main sealing area.

\*\*\*)  $h_{gr} = hj / \sqrt{1,04}$

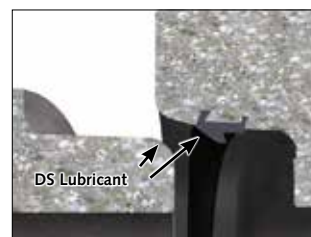
## PRODUCTION OF PIPES WITH DS ANKER L OR DS BZ-T SEALING RING

- Mount the sealing ring and the cleaned form ring on the cleaned and lightly oiled base ring. Ensure correct seating and even pre-stretching of the sealing rings.
- Before mounting, ensure that the socket is completely filled with concrete. Then produce concrete pipe in normal manner. After removal of the pipe mould, place inner and outer supporting rings on the spigot end and leave them there until concrete has cured.
- On the next day pull base ring centrally and remove supporting rings. After the concrete has fully cured the pipe is ready for installation.



## PIPE LAYING TIPS

Pipe connections can be installed without any problems using normal construction site equipment. When laying the pipes observe DIN EN 1610 and work sheet DWA-A 139.



- Clean socket and spigot end.
- Cover thoroughly the spigot end with DS lubricant. The additional use of lubricant on the seal is recommended as this reduces the mounting forces.
- Move spigot end centrally into socket and pull pipes together.

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