
POLYPAC[®] - Balsele



Single Acting

Compact Seal

Without and with Back-up Ring

Material:

Fabric Reinforced NBR + POM



■ Balsele



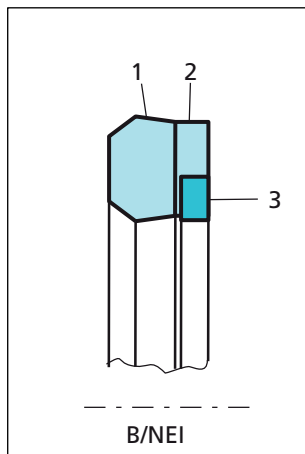
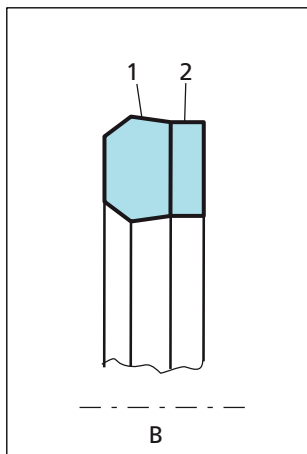
Description

The Balsele is a compact rod seal consisting of an elastomeric sealing element and an integrated fabric reinforced base.

Due to the radial pre-load an excellent sealing performance will be achieved even at low pressures. The fabric reinforced base prevents the seal from extrusion. Where extrusion gaps are greater than those specified or for higher pressure conditions the serie B/NEI with incorporated anti-extrusion ring shall be selected.

Design

- 1) Sealing element manufactured from a specially developed nitrile compound particularly resistant to compression set. The sealing lips are produced to give optimum efficiency and wear resistance.
- 2) The reinforced base of the seal element is of cotton fabric impregnated with nitrile elastomer and vulcanised with the sealing element 1, thus forming an integral component.
- 3) Guide rings or antiextrusion rings are made from acetal resin. As previously described these rings maintain the seal in the optimum position for maximum performance, and minimise all possible extrusion gaps.



Advantages

- Small cross sections
- Good chemical resistance
- Large size range
- No hydrolyses problems
- Wide temperature range

Application Examples

- Standard hydraulic cylinders (low to medium duty)
- Mobile hydraulic
- Water based fluids equipment
- After market
- Presses

Technical Data

Operating conditions

Pressure:	Up to 25 MPa (Type B) Up to 40 MPa (Type B/NEI)
Velocity:	Up to 0.5 m/s
Temperature:	- 30 °C to +130 °C
Media:	Mineral oil, water, air

Important Note:

The above data are maximum values and cannot be used at the same time. e.g. the maximum operating speed depends on material type, pressure, temperature and gap value. Temperature range also dependent on medium.

Materials

For type B:
NBR + cotton fabric
Material code N8C0

for type B/NEI:
NBR + cotton fabric
Back-up Ring material POM
Material code N8CO



Design Instructions

Lead in chamfers

In order to avoid damage to the Balsele during installation, lead in chamfers of min. 5 x 20° must be provided on the rods.

Rod Diameter	Lead in Chamfer
0 - 100	5 x 20°
101 - 200	7 x 20°
201 - 400	10 x 20°

Surface roughness

Parameter	Mating Surface µm	Groove Surface µm
R _{max}	0.63 - 2.50	< 16.0
R _z DIN	0.40 - 1.60	< 10.0
R _a	0.05 - 0.20	< 1.6

The material contact area R_{mr} should be approx. 50 to 70%, determined at a cut depth $c = 0.25 \times R_z$, relative to a reference line of C_{ref}. 5%.

Clearance

Operating max. Pressure MPa	Radial Clearance S max.
16	0.20
25	0.10

For Type B/NEI (with Back-up Ring) the values can be double and with similar gap measure S_{max.} = 0.10 a pressure of 40 MPa can be tightened.



■ Installation Recommendation

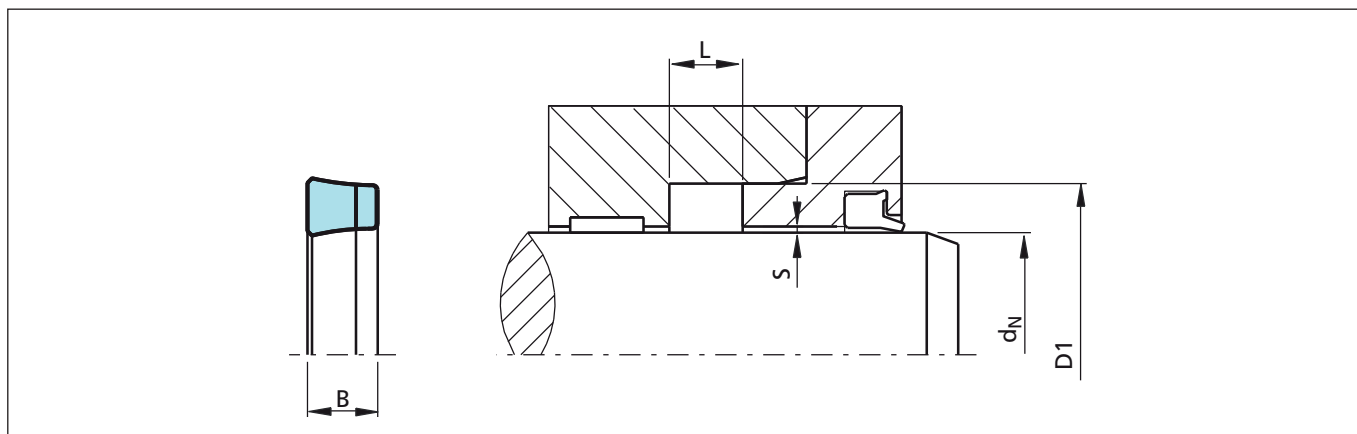


Figure 36 Installation drawing

Ordering example

Balsele Type B
 Rod diameter: $d_N = 6.0 \text{ mm}$
 Groove diameter: $D_1 = 10.0 \text{ mm}$
 Groove width: $L = 5.0 \text{ mm}$
 TSS Part No.: RUM000060 -
 Compound: N8C0 (NBR + cotton fabric)

TSS Article No.	RUM	0	0	0060	-	N8C0
TSS Series No.						
Design code						
Execution Mark						
Rod diameter x 10						
Quality Index (Standard)						
Material code (Seal ring)						
Polypac Ref. No.: B 039023						

Table XXIX Installation dimensions / TSS Article No.

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D_1 H11	$L + 0.1$	B		
*	4.76	12.70	6.40	5.75	RUM000047-N8C0	B 050018
*	6.00	10.00	5.00	4.00	RUM000060-N8C0	B 039023
*	6.00	14.00	6.40	5.90	RUM100060-N8C0	B 055024
*	6.35	14.28	6.85	6.30	RUM000063-N8C0	B 056025
*	8.00	15.00	6.40	5.90	RUM000080-N8C0	B 059031
*	10.00	17.00	6.40	5.90	RUM100100-N8C0	B 066039
*	11.11	20.63	7.65	7.00	RUM000111-N8C0	B 081043
*	12.00	18.00	7.50	7.00	RUM000120-N8C0	B 070047
*	12.00	19.00	6.30	5.80	RUM100120-N8C0	B 075047

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



POLYPAC® - Balsele

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
*	12.00	20.00	6.40	5.80	RUM200120-N8C0	B 078047
*	12.70	19.05	5.25	4.80	RUM000127-N8C0	B 075050
*	12.70	20.63	6.85	6.30	RUM100127-N8C0	B 081050
*	12.70	22.22	7.65	7.00	RUM200127-N8C0	B 087050
*	14.00	22.00	6.50	5.90	RUM000140-N8C0	B 086055
*	14.28	23.81	7.65	7.00	RUM000142-N8C0	B 093056
*	15.00	23.00	6.40	5.80	RUM000150-N8C0	B 090059
*	15.87	22.22	5.25	4.80	RUM000158-N8C0	B 087062
*	15.87	25.40	7.65	7.00	RUM100158-N8C0	B 100062
*	16.00	24.00	6.40	5.90	RUM000160-N8C0	B 094063/1
*	16.00	24.00	7.00	6.50	RUM100160-N8C0	B 094063
*	17.46	30.16	10.00	9.20	RUM000174-N8C0	B 118068
*	18.00	25.00	8.00	7.30	RUM100180-N8C0	B 098070
*	18.00	26.00	6.40	5.80	RUM200180-N8C0	B 102070/1
*	18.00	26.00	7.00	6.50	RUM300180-N8C0	B 102070
*	18.00	28.00	6.30	5.70	RUM400180-N8C0	B 110070
*	19.05	28.58	9.00	8.00	RUM100190-N8C0	B 112075
*	19.05	31.75	8.50	7.70	RUM000190-N8C0	B 125075/1
*	20.00	27.00	6.50	5.90	RUM000200-N8C0	B 106078
*	20.00	28.00	6.30	5.70	RUM200200-N8C0	B 110078/1
*	20.00	28.00	7.00	6.50	RUM100200-N8C0	B 110078
*	20.00	30.00	8.50	7.60	RUM300200-N8C0	B 118078
*	20.00	35.00	11.50	10.60	RUM400200-N8C0	B 137078
*	20.63	33.33	10.00	9.20	RUM000206-N8C0	B 131081
*	22.00	30.00	6.50	5.90	RUM000220-N8C0	B 118086/1
*	22.00	30.00	7.00	6.50	RUM100220-N8C0	B 118086
*	22.00	35.00	10.00	9.20	RUM400220-N8C0	B 137086
*	22.22	31.75	9.20	8.60	RUM000222-N8C0	B 125087
*	23.81	36.51	10.00	9.20	RUM000238-N8C0	B 143093
*	24.00	32.00	7.50	6.90	RUM000240-N8C0	B 125094
*	24.00	34.00	6.50	5.90	RUM100240-N8C0	B 134094
*	25.00	33.00	6.40	5.80	RUM000250-N8C0	B 129098/1
*	25.00	35.00	9.00	8.40	RUM100250-N8C0	B 137098
*	25.00	38.00	10.00	9.15	RUM200250-N8C0	B 149098
*	25.00	44.00	12.50	11.40	RUM300250-N8C0	B 173098
*	25.40	31.75	5.25	4.70	RUM000254-N8C0	B 125100

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* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D_1 H11	L +0.1	B		
*	25.40	34.92	6.85	6.20	RUM100254-N8C0	B 137100
*	25.40	38.10	10.00	9.20	RUM200254-N8C0	B 150100
*	25.40	41.27	11.60	10.70	RUM300254-N8C0	B 162100
*	26.00	40.00	10.00	9.20	RUM000260-N8C0	B 157102/1
*	27.00	35.00	6.50	5.90	RUM000270-N8C0	B 137106
	28.00	36.00	6.40	5.80	RUM000280-N8C0	B 141110
*	28.19	39.68	8.00	7.30	RUM000281-N8C0	B 156111
*	28.57	41.27	10.00	9.20	RUM100285-N8C0	B 162112
*	28.57	44.45	11.60	10.70	RUM200285-N8C0	B 175112
	30.00	37.50	6.50	6.00	RUM100300-N8C0	B 147118
	30.00	38.00	6.40	5.80	RUM000300-N8C0	B 149118
*	30.00	40.00	7.50	6.80	RUM300300-N8C0	B 157118
*	30.00	41.60	8.00	7.20	RUM500300-N8C0	B 164118
*	30.00	45.00	9.00	8.50	RUM600300-N8C0	B 177118/1
*	30.00	50.00	14.50	13.50	RUM700300-N8C0	B 196118
*	31.75	47.62	11.60	10.60	RUM200317-N8C0	B 187125
	32.00	40.00	6.30	5.80	RUM000320-N8C0	B 157125/1
*	32.00	40.00	9.00	8.50	RUM100320-N8C0	B 157125
*	34.92	50.80	10.00	9.10	RUM100349-N8C0	B 200137/1
*	34.92	50.80	11.60	10.60	RUM200349-N8C0	B 200137/2
	35.00	43.00	6.50	6.00	RUM000350-N8C0	B 169137
*	35.00	45.00	8.00	7.20	RUM100350-N8C0	B 177137/5
*	35.00	45.00	13.50	12.80	RUM300350-N8C0	B 177137/2
*	35.00	50.00	11.50	10.60	RUM400350-N8C0	B 196137
	36.00	43.00	6.50	6.00	RUM000360-N8C0	B 169141
	36.00	44.00	6.40	5.90	RUM100360-N8C0	B 173141
*	37.72	50.80	9.00	8.20	RUM000377-N8C0	B 200148
*	38.00	50.00	9.50	8.80	RUM000380-N8C0	B 196149
*	38.10	50.80	12.40	11.90	RUM100381-N8C0	B 200150/1
*	38.10	53.97	11.50	10.50	RUM400381-N8C0	B 212150/1
*	38.10	53.97	12.83	12.00	RUM500381-N8C0	B 212150/2
	40.00	48.00	6.50	6.00	RUM000400-N8C0	B 188157
	40.00	50.00	8.00	7.40	RUM100400-N8C0	B 196157/3
*	40.00	50.00	11.00	10.30	RUM300400-N8C0	B 196157
*	40.00	50.00	13.50	12.80	RUM400400-N8C0	B 196157/2
*	40.00	60.00	14.50	13.30	RUM700400-N8C0	B 236157

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* Split groove



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Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	41.27	57.12	11.60	10.70	RUM000412-N8C0	B 225162
	42.00	50.00	6.40	6.00	RUM000420-N8C0	B 196165
*	42.92	55.50	8.90	8.10	RUM000429-N8C0	B 218169
	43.00	53.00	9.00	8.40	RUM000430-N8C0	B 208169
	44.00	53.00	8.00	7.30	RUM000440-N8C0	B 208173
*	44.45	60.32	11.60	10.70	RUM100444-N8C0	B 237175
*	44.45	61.91	11.60	10.60	RUM200444-N8C0	B 243175
	45.00	53.00	6.50	6.00	RUM000450-N8C0	B 208177
	45.00	55.00	8.00	7.30	RUM100450-N8C0	B 216177
*	45.00	63.00	11.00	10.00	RUM500450-N8C0	B 248177
*	45.00	65.00	14.50	13.30	RUM600450-N8C0	B 255177
	45.97	55.37	8.33	7.60	RUM000459-N8C0	B 218181
	46.00	56.00	8.00	7.30	RUM100460-N8C0	B 220181
*	47.23	60.32	10.00	9.20	RUM000472-N8C0	B 237186
*	47.62	63.50	11.50	10.60	RUM000476-N8C0	B 250187
*	48.00	60.00	7.00	6.30	RUM000480-N8C0	B 236188
*	50.00	58.00	12.50	12.00	RUM000500-N8C0	B 228196
	50.00	60.00	8.00	7.30	RUM100500-N8C0	B 236196
*	50.00	60.00	10.00	9.30	RUM200500-N8C0	B 236196/1
*	50.00	62.00	9.50	8.50	RUM300500-N8C0	B 244196/1
*	50.00	64.50	11.50	10.50	RUM400500-N8C0	B 254196
*	50.00	70.00	14.50	13.30	RUM600500-N8C0	B 275196
	50.80	60.35	11.00	10.30	RUM000508-N8C0	B 237200
*	50.80	66.67	11.50	10.50	RUM100508-N8C0	B 262200
*	53.97	73.02	14.80	13.80	RUM000539-N8C0	B 287212
	55.00	70.00	10.50	9.60	RUM200550-N8C0	B 275216
*	55.00	75.00	14.50	13.30	RUM300550-N8C0	B 295216
	56.00	66.00	8.00	7.30	RUM000560-N8C0	B 259220
*	56.00	76.00	14.50	13.40	RUM200560-N8C0	B 299220
	57.00	67.00	8.00	7.30	RUM000570-N8C0	B 263224
	57.15	69.85	10.00	9.20	RUM000571-N8C0	B 275225
*	57.15	73.02	11.50	10.60	RUM100571-N8C0	B 287225
*	57.15	76.20	10.00	8.90	RUM200571-N8C0	B 300225
*	57.15	76.20	13.50	12.40	RUM300571-N8C0	B 300225/1
*	57.15	76.20	14.28	13.20	RUM400571-N8C0	B 300225/2
	60.00	69.50	7.00	6.40	RUM000600-N8C0	B 273236

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* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	60.00	70.00	8.00	7.50	RUM100600-N8C0	B 275236
	60.00	71.00	9.60	9.00	RUM400600-N8C0	B 279236
	60.00	72.00	10.00	9.20	RUM500600-N8C0	B 283236
*	60.00	75.00	13.00	12.10	RUM600600-N8C0	B 295236
*	60.00	80.00	14.50	13.50	RUM700600-N8C0	B 314236
*	60.32	79.37	14.80	13.80	RUM000603-N8C0	B 312237
	61.00	69.00	8.50	7.90	RUM000610-N8C0	B 271240
	63.00	75.00	9.60	8.80	RUM000630-N8C0	B 295248/1
*	63.00	83.00	14.50	13.30	RUM300630-N8C0	B 326248
*	63.50	82.55	14.28	13.13	RUM200635-N8C0	B 325250/1
	65.00	75.00	8.50	7.80	RUM000650-N8C0	B 295255/1
	65.00	75.00	13.50	12.30	RUM100650-N8C0	B 295255
	65.00	77.00	9.60	8.80	RUM200650-N8C0	B 303255
	65.00	80.00	11.50	10.60	RUM300650-N8C0	B 314255
*	65.00	85.00	14.50	13.50	RUM600650-N8C0	B 334255
*	65.00	95.00	17.50	15.80	RUM500650-N8C0	B 374255
*	66.00	80.00	11.00	10.10	RUM000660-N8C0	B 314259
*	66.67	85.72	14.80	13.70	RUM000667-N8C0	B 337262
	68.00	76.00	8.00	7.40	RUM000680-N8C0	B 299267
	70.00	80.00	8.00	7.30	RUM100700-N8C0	B 314275/1
	70.00	82.00	9.60	8.80	RUM300700-N8C0	B 322275/1
	70.00	84.00	12.50	11.20	RUM500700-N8C0	B 330275
*	70.00	85.00	12.00	11.00	RUM600700-N8C0	B 334275/1
*	70.00	90.00	14.50	13.50	RUM800700-N8C0	B 354275
*	73.02	88.90	12.50	11.50	RUM000730-N8C0	B 350287
	75.00	85.00	8.00	7.30	RUM000750-N8C0	B 334295/1
	75.00	89.50	11.50	10.50	RUM200750-N8C0	B 352295
	75.00	90.00	11.50	10.60	RUM300750-N8C0	B 354295
*	75.00	95.00	11.00	10.00	RUM500750-N8C0	B 374295/1
	76.00	84.00	8.50	7.90	RUM000760-N8C0	B 330299
	76.20	88.90	9.40	8.70	RUM000762-N8C0	B 350300
*	76.20	95.25	14.80	13.70	RUM200762-N8C0	B 375300
	77.00	87.00	8.00	7.30	RUM000770-N8C0	B 342303
	79.00	88.50	7.00	6.40	RUM000790-N8C0	B 348311
	80.00	90.00	8.00	7.30	RUM000800-N8C0	B 354314
	80.00	92.00	9.60	8.80	RUM100800-N8C0	B 362314

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* Split groove



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Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	80.00	96.00	10.50	9.60	RUM400800-N8C0	B 377314
	80.00	100.00	14.50	13.40	RUM600800-N8C0	B 393314
	81.00	91.00	8.00	7.30	RUM000810-N8C0	B 358318
	82.55	101.60	14.80	13.70	RUM000825-N8C0	B 400325/1
	84.00	94.00	8.00	7.30	RUM100840-N8C0	B 370330
	85.00	95.00	8.00	7.30	RUM000850-N8C0	B 374334
	85.00	95.00	8.50	7.80	RUM100850-N8C0	B 374334/1
	85.00	97.00	9.60	9.00	RUM200850-N8C0	B 381334
	85.00	100.00	12.00	10.80	RUM300850-N8C0	B 393334/1
	85.00	105.00	14.50	13.40	RUM400850-N8C0	B 413334
*	85.00	110.00	13.50	12.20	RUM500850-N8C0	B 433334
*	85.72	104.77	14.80	13.80	RUM000857-N8C0	B 412337
*	85.72	111.12	19.50	18.20	RUM100857-N8C0	B 437337
	88.00	96.00	8.00	7.50	RUM000880-N8C0	B 377346
	88.90	101.60	10.00	9.20	RUM000889-N8C0	B 400350
*	88.90	107.95	12.70	11.60	RUM100889-N8C0	B 425350
	90.00	102.00	9.60	8.80	RUM100900-N8C0	B 401354
	90.00	110.00	12.50	11.40	RUM500900-N8C0	B 433354
	91.00	99.00	8.50	7.90	RUM000910-N8C0	B 389358
*	92.07	117.45	13.20	12.00	RUM100920-N8C0	B 462362/1
	95.00	105.00	11.00	10.30	RUM000950-N8C0	B 413374
	95.00	107.00	12.50	11.70	RUM100950-N8C0	B 421374
	95.00	110.00	12.50	11.36	RUM200950-N8C0	B 433374
	95.25	114.30	13.50	12.40	RUM000952-N8C0	B 450375
*	95.25	120.65	19.50	18.20	RUM100952-N8C0	B 475375
	96.00	105.00	8.50	7.90	RUM000960-N8C0	B 413377
	96.00	108.00	12.50	11.70	RUM100960-N8C0	B 425377
	97.00	108.00	12.50	11.80	RUM000970-N8C0	B 425381
	98.00	107.50	7.00	6.20	RUM000980-N8C0	B 423385
	100.00	113.00	13.50	12.70	RUM001000-N8C0	B 444393
	100.00	115.00	11.50	10.60	RUM101000-N8C0	B 452393/1
	100.00	120.00	12.00	11.20	RUM301000-N8C0	B 472393/1
	100.00	120.00	14.50	13.40	RUM401000-N8C0	B 472393
	101.50	123.82	17.18	16.00	RUM001015-N8C0	B 487400
	101.60	127.00	19.50	18.00	RUM001016-N8C0	B 500400
	103.00	115.00	12.50	11.80	RUM001030-N8C0	B 452405

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* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	104.00	120.00	12.00	11.20	RUM001040-N8C0	B 472409
	104.00	130.00	19.50	18.00	RUM101040-N8C0	B 511409
	105.00	115.00	11.00	10.00	RUM001050-N8C0	B 452413
	105.00	117.00	12.50	11.80	RUM101050-N8C0	B 460413
	105.00	120.00	12.00	11.00	RUM201050-N8C0	B 472413
	105.00	125.00	12.50	11.40	RUM301050-N8C0	B 492413
	106.00	116.00	8.50	7.80	RUM001060-N8C0	B 457417
	107.00	115.00	8.00	7.40	RUM001070-N8C0	B 452421
	107.95	133.35	19.00	17.70	RUM001079-N8C0	B 525425
	110.00	125.00	12.00	11.20	RUM001100-N8C0	B 492433
	110.00	140.00	16.50	15.00	RUM301100-N8C0	B 551433
	114.30	133.35	12.40	11.40	RUM001143-N8C0	B 525450
	114.30	139.70	19.50	18.00	RUM101143-N8C0	B 550450
	115.00	125.00	8.00	7.40	RUM001150-N8C0	B 492452
	115.00	135.00	16.00	14.80	RUM101150-N8C0	B 531452
	118.00	130.00	12.50	11.80	RUM001180-N8C0	B 511464
	120.00	130.00	8.00	7.40	RUM001200-N8C0	B 511472
	120.00	132.70	10.00	9.20	RUM101200-N8C0	B 522472
	120.00	140.00	12.50	11.40	RUM301200-N8C0	B 551472
	120.65	146.05	19.50	18.20	RUM001206-N8C0	B 575475
	123.00	133.00	8.00	7.40	RUM001230-N8C0	B 523484
	125.00	135.00	8.50	7.80	RUM001250-N8C0	B 531492
	125.00	140.00	12.00	11.00	RUM101250-N8C0	B 551492
	126.00	134.00	8.00	7.50	RUM001260-N8C0	B 527496
	126.00	136.00	8.50	7.80	RUM101260-N8C0	B 535496
	127.00	139.70	10.00	8.70	RUM001270-N8C0	B 550500
	127.00	152.40	19.50	18.20	RUM201270-N8C0	B 600500
	130.00	140.00	8.00	7.40	RUM001300-N8C0	B 551511
	131.00	144.00	13.50	12.70	RUM001310-N8C0	B 566515
	133.35	158.75	14.00	12.60	RUM001333-N8C0	B 625525/1
	139.70	165.10	19.50	18.20	RUM001397-N8C0	B 650550
	140.00	155.00	13.00	12.00	RUM001400-N8C0	B 610551
	146.05	171.45	19.50	18.20	RUM101460-N8C0	B 675575
	152.40	177.80	19.50	18.20	RUM001524-N8C0	B 700600
	152.40	184.15	25.80	24.20	RUM101524-N8C0	B 725600
	155.00	170.00	9.50	8.55	RUM001550-N8C0	B 669610

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



POLYPAC® - Balsele

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	158.75	190.50	25.80	24.20	RUM001587-N8C0	B 750625
	160.00	174.00	11.50	10.60	RUM001600-N8C0	B 685629
	163.00	178.00	13.00	12.00	RUM001630-N8C0	B 700641
	165.10	177.80	10.00	9.20	RUM001651-N8C0	B 700650
	165.10	196.85	25.80	24.20	RUM101651-N8C0	B 775650
	170.00	182.70	10.00	9.20	RUM001700-N8C0	B 719669
	171.45	203.20	25.80	24.20	RUM001714-N8C0	B 800675
	175.00	200.00	14.50	13.10	RUM001750-N8C0	B 787688
	177.80	203.20	22.70	21.40	RUM001778-N8C0	B 800700
	180.00	195.00	12.50	11.50	RUM001800-N8C0	B 767708
	184.15	215.90	25.80	24.20	RUM001841-N8C0	B 850725
	187.00	202.00	11.50	10.60	RUM001870-N8C0	B 795736
	188.00	203.00	13.00	12.00	RUM001880-N8C0	B 799740
	190.50	222.25	25.80	24.20	RUM001905-N8C0	B 875750
	196.00	208.70	9.50	8.70	RUM001960-N8C0	B 821771
	196.85	228.60	25.80	24.20	RUM001968-N8C0	B 900775
	203.20	235.00	25.80	24.20	RUM002032-N8C0	B 925800
	214.00	229.00	13.00	12.10	RUM002140-N8C0	B 901842
	215.90	247.65	25.80	24.20	RUM002159-N8C0	B 975850
	222.25	254.00	25.80	24.20	RUM002222-N8C0	B 1000875
	224.00	236.70	9.50	8.70	RUM002240-N8C0	B 931881
	228.60	260.35	25.80	24.20	RUM002286-N8C0	B 1025900
	238.00	258.00	15.50	14.40	RUM002380-N8C0	B 1015937
	240.00	255.00	13.00	12.00	RUM002400-N8C0	B 1003944
	241.30	273.05	25.80	24.20	RUM002413-N8C0	B 1075950
	250.00	290.00	25.40	23.30	RUM002500-N8C0	B 1141984
	254.00	285.75	25.80	24.20	RUM002540-N8C0	B 11251000
	260.35	292.10	25.80	24.20	RUM002603-N8C0	B 11501025
	266.70	298.45	25.80	24.20	RUM002667-N8C0	B 11751050
	273.05	304.80	25.80	24.20	RUM002730-N8C0	B 12001075
	279.40	311.15	25.80	24.20	RUM002794-N8C0	B 12251100
	280.00	320.00	22.50	20.30	RUM002800-N8C0	B 12591102
	285.75	317.50	25.80	24.20	RUM002857-N8C0	B 12501125
	298.45	330.20	25.80	24.20	RUM002984-N8C0	B 13001175
	304.80	336.55	25.80	24.20	RUM003048-N8C0	B 13251200
	318.00	355.00	13.00	11.90	RUM003180-N8C0	B 13191252

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	320.00	360.00	25.50	23.30	RUM003200-N8C0	B 14171259
	350.00	385.00	25.40	23.50	RUM003500-N8C0	B 15151377
	375.00	415.00	25.40	23.20	RUM003750-N8C0	B 16331476
	445.00	482.00	35.50	33.50	RUM004450-N8C0	B 19001750

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



Installation Recommendation

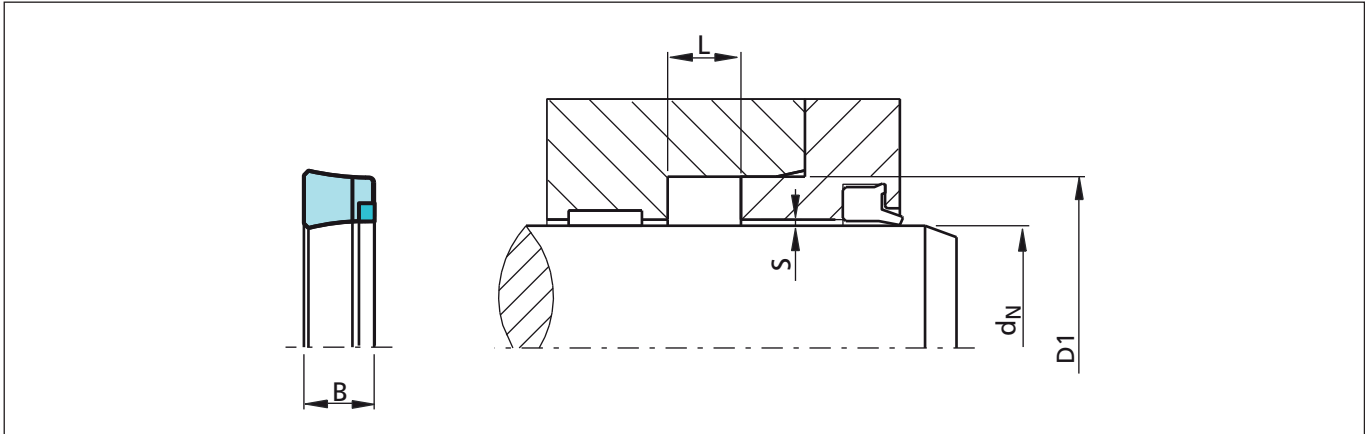


Figure 37 Installation drawing

Ordering example

Balsele Type B/NEI
 Rod diameter: $d_N = 20.0$ mm
 Groove diameter: $D_1 = 28.0$ mm
 Groove width $L = 7.0$ mm
 TSS Part No.: RUM1E0200 -
 Compound: N8CO (NBR + cotton fabric and POM Back-up Ring)

TSS Article No.	RUM	1	E	0200	-	N8CO
TSS Series No.						
Design code						
Execution Mark						
Rod diameter x 10						
Quality Index (Standard)						
Material code (Seal ring)						
Polypac Ref. No.: B 110078/NEI						

Table XXX Installation dimensions / TSS Article No.

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D_1 H11	$L +0.1$	B		
*	12.00	23.00	7.50	6.80	RUM3E0120-N8CO	B090047/NEI
*	15.00	27.00	7.00	6.30	RUM1E0150-N8CO	B106059/NEI
*	16.00	24.00	7.00	6.50	RUM1E0160-N8CO	B094063/NEI
*	16.00	28.00	7.50	6.90	RUM2E0160-N8CO	B110062/NEI
*	18.00	28.00	6.30	5.70	RUM4E0180-N8CO	B110070/NEI
*	18.00	30.00	7.50	6.90	RUM5E0180-N8CO	B118070/NEI
*	20.00	28.00	6.30	5.70	RUM2E0200-N8CO	B110078/1/NEI
*	20.00	28.00	7.00	6.50	RUM1E0200-N8CO	B110078/NEI
*	20.00	30.00	8.50	7.60	RUM3E0200-N8CO	B118078/NEI

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
*	22.00	30.00	7.00	6.50	RUM1E0220-N8C0	B118086/NEI
*	22.00	32.00	10.00	9.00	RUM2E0220-N8C0	B125086/NEI
*	22.00	34.00	9.50	8.90	RUM3E0220-N8C0	B133086/NEI
*	22.00	35.00	10.00	9.20	RUM4E0220-N8C0	B137086/NEI
*	25.00	33.00	6.40	5.80	RUM0E0250-N8C0	B129098/1/NEI
*	25.00	35.00	9.00	8.40	RUM1E0250-N8C0	B137098/NEI
*	25.00	38.00	10.00	9.15	RUM2E0250-N8C0	B149098/NEI
*	25.40	38.10	10.00	9.20	RUM2E0254-N8C0	B150100/NEI
*	28.00	36.00	6.40	5.80	RUM0E0280-N8C0	B141110/NEI
*	28.00	38.00	8.00	7.40	RUM1E0280-N8C0	B149110/1/NEI
*	28.00	40.00	9.50	8.90	RUM2E0280-N8C0	B157110/NEI
*	28.00	41.00	10.00	9.30	RUM3E0280-N8C0	B161110/NEI
*	28.57	39.68	9.25	8.50	RUM0E0285-N8C0	B156112/NEI
*	30.00	38.00	6.40	5.80	RUM0E0300-N8C0	B149118/NEI
*	30.00	40.00	7.50	6.80	RUM3E0300-N8C0	B157118/NEI
*	30.00	40.00	10.50	9.80	RUM4E0300-N8C0	B157118/1/NEI
*	30.00	45.00	9.00	8.50	RUM6E0300-N8C0	B177118/1/NEI
*	30.00	50.00	14.50	13.50	RUM7E0300-N8C0	B196118/NEI
*	31.75	47.62	11.60	10.60	RUM2E0317-N8C0	B187125/NEI
*	32.00	40.00	6.30	5.80	RUM0E0320-N8C0	B157125/1/NEI
*	32.00	40.00	9.00	8.50	RUM1E0320-N8C0	B157125/NEI
*	32.00	42.00	8.50	7.80	RUM2E0320-N8C0	B165125/1/NEI
*	32.00	42.00	11.00	10.30	RUM3E0320-N8C0	B165125/NEI
*	32.00	45.00	10.00	9.50	RUM4E0320-N8C0	B177125/NEI
*	34.92	50.80	8.50	7.50	RUM0E0349-N8C0	B200137/4/NEI
*	34.92	50.80	11.60	10.60	RUM2E0349-N8C0	B200137/2/NEI
*	35.00	43.00	6.50	6.00	RUM0E0350-N8C0	B169137/NEI
*	35.00	45.00	10.50	9.80	RUM2E0350-N8C0	B177137/3/NEI
*	35.00	50.00	11.50	10.60	RUM4E0350-N8C0	B196137/NEI
*	36.00	43.00	6.50	6.00	RUM0E0360-N8C0	B169141/NEI
*	36.00	44.00	6.40	5.90	RUM1E0360-N8C0	B173141/NEI
*	36.00	46.00	8.50	7.80	RUM2E0360-N8C0	B181141/NEI
*	36.00	48.00	9.50	8.70	RUM3E0360-N8C0	B188141/NEI
*	36.00	48.00	12.00	11.20	RUM4E0360-N8C0	B188141/1/NEI
*	38.10	50.80	10.00	9.22	RUM2E0381-N8C0	B200150/NEI
*	38.10	53.97	10.50	9.50	RUM3E0381-N8C0	B212150/5/NEI

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



POLYPAC® - Balsele with Back-up Ring

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D_1 H11	L +0.1	B		
*	40.00	48.00	6.50	6.00	RUM0E0400-N8C0	B188157/NEI
*	40.00	50.00	8.00	7.40	RUM1E0400-N8C0	B196157/3/NEI
*	40.00	50.00	10.50	9.80	RUM2E0400-N8C0	B196157/1/NEI
*	40.00	50.00	11.00	10.30	RUM3E0400-N8C0	B196157/NEI
*	40.00	55.00	8.00	7.00	RUM5E0400-N8C0	B216157/NEI
*	40.00	55.00	11.00	10.10	RUM6E0400-N8C0	B216157/1/NEI
*	40.00	60.00	14.50	13.30	RUM7E0400-N8C0	B236157/NEI
*	42.00	52.00	9.00	8.40	RUM1E0420-N8C0	B204165/NEI
	44.45	53.97	7.62	7.00	RUM0E0444-N8C0	B212175/1/NEI
*	44.45	60.32	11.60	10.70	RUM1E0444-N8C0	B237175/NEI
	45.00	55.00	8.00	7.30	RUM1E0450-N8C0	B216177/NEI
	45.00	55.00	11.00	10.00	RUM2E0450-N8C0	B216177/1/NEI
*	45.00	57.00	10.00	9.00	RUM3E0450-N8C0	B224177/NEI
*	45.00	60.00	10.50	9.60	RUM4E0450-N8C0	B236177/NEI
*	45.00	65.00	14.50	13.30	RUM6E0450-N8C0	B255177/NEI
	50.00	60.00	8.00	7.30	RUM1E0500-N8C0	B236196/NEI
	50.00	60.00	10.00	9.30	RUM2E0500-N8C0	B236196/1/NEI
*	50.00	62.00	9.50	8.50	RUM3E0500-N8C0	B244196/1/NEI
	50.00	65.00	11.00	10.10	RUM5E0500-N8C0	B255196/NEI
*	50.00	70.00	14.50	13.30	RUM6E0500-N8C0	B275196/NEI
*	54.00	66.00	9.50	8.70	RUM0E0540-N8C0	B259212/NEI
	55.00	65.00	8.00	7.30	RUM0E0550-N8C0	B255216/1/NEI
	55.00	65.00	11.00	10.30	RUM1E0550-N8C0	B255216/NEI
*	55.00	70.00	10.50	9.60	RUM2E0550-N8C0	B275216/NEI
*	55.00	75.00	14.50	13.30	RUM3E0550-N8C0	B295216/NEI
*	56.00	71.00	10.50	9.60	RUM1E0560-N8C0	B279220/NEI
*	56.00	76.00	14.50	13.40	RUM2E0560-N8C0	B299220/NEI
	57.15	69.85	10.00	9.20	RUM0E0571-N8C0	B275225/NEI
	60.00	69.50	7.00	6.40	RUM0E0600-N8C0	B273236/NEI
	60.00	70.00	8.00	6.40	RUM1E0600-N8C0	B275236/NEI
	60.00	70.00	11.00	10.30	RUM2E0600-N8C0	B275236/1/NEI
	60.00	70.00	13.00	12.25	RUM3E0600-N8C0	B275236/2/NEI
	60.00	72.00	10.00	9.20	RUM5E0600-N8C0	B283236/NEI
*	60.00	75.00	13.00	12.10	RUM6E0600-N8C0	B295236/NEI
*	60.00	80.00	14.50	13.50	RUM7E0600-N8C0	B314236/NEI
	63.00	75.00	11.00	10.20	RUM1E0630-N8C0	B295248/NEI

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
*	63.00	78.00	12.50	11.50	RUM2E0630-N8C0	B307248/NEI
*	63.00	83.00	14.50	13.30	RUM3E0630-N8C0	B326248/NEI
	63.50	76.20	8.50	7.70	RUM0E0635-N8C0	B300250/NEI
*	63.50	77.78	11.50	10.70	RUM1E0635-N8C0	B306250/NEI
	65.00	75.00	13.50	12.30	RUM1E0650-N8C0	B295255/NEI
	65.00	77.00	9.60	8.80	RUM2E0650-N8C0	B303255/NEI
*	65.00	80.00	11.50	10.60	RUM3E0650-N8C0	B314255/NEI
*	65.00	80.00	12.50	11.50	RUM4E0650-N8C0	B314255/2/NEI
	70.00	80.00	8.00	7.30	RUM0E0700-N8C0	B314275/1/NEI
	70.00	80.00	13.00	12.30	RUM2E0700-N8C0	B314275/NEI
	70.00	82.00	10.50	9.70	RUM4E0700-N8C0	B322275/NEI
	70.00	84.00	12.50	11.20	RUM5E0700-N8C0	B330275/NEI
*	70.00	85.00	12.00	11.00	RUM6E0700-N8C0	B334275/1/NEI
*	70.00	85.00	12.50	11.50	RUM7E0700-N8C0	B334275/NEI
*	70.00	90.00	14.50	13.50	RUM8E0700-N8C0	B354275/NEI
*	72.00	87.00	11.00	10.00	RUM0E0720-N8C0	B342283/NEI
	75.00	85.00	11.00	10.30	RUM1E0750-N8C0	B334295/2/NEI
	75.00	90.00	11.50	10.60	RUM3E0750-N8C0	B354295/NEI
*	75.00	90.00	12.80	11.80	RUM4E0750-N8C0	B354295/1/NEI
	75.00	95.00	14.50	13.50	RUM6E0750-N8C0	B374295/NEI
	80.00	93.00	14.50	13.50	RUM2E0800-N8C0	B366314/NEI
	80.00	95.00	12.00	11.10	RUM3E0800-N8C0	B374314/NEI
	80.00	96.00	10.50	9.60	RUM4E0800-N8C0	B377314/NEI
*	80.00	100.00	12.00	10.80	RUM5E0800-N8C0	B393314/1/NEI
*	80.00	100.00	14.50	13.40	RUM6E0800-N8C0	B393314/NEI
	85.00	95.00	8.00	7.30	RUM0E0850-N8C0	B374334/NEI
	85.00	97.00	9.60	9.00	RUM2E0850-N8C0	B381334/NEI
	85.00	100.00	12.00	10.80	RUM3E0850-N8C0	B393334/1/NEI
*	85.00	105.00	14.50	13.40	RUM4E0850-N8C0	B413334/NEI
*	88.90	114.30	19.50	18.20	RUM2E0889-N8C0	B450350/2/NEI
	90.00	105.00	9.50	8.70	RUM2E0900-N8C0	B413354/NEI
	90.00	105.00	12.50	11.60	RUM3E0900-N8C0	B413354/1/NEI
	90.00	106.20	10.80	9.80	RUM4E0900-N8C0	B418354/NEI
*	90.00	110.00	12.50	11.40	RUM5E0900-N8C0	B433354/NEI
*	92.07	111.12	12.50	11.30	RUM0E0920-N8C0	B437362/NEI
	95.00	105.00	11.00	10.30	RUM0E0950-N8C0	B413374/NEI

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



POLYPAC® - Balsele with Back-up Ring

Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D_1 H11	L +0.1	B		
*	95.00	112.00	12.00	11.10	RUM3E0950-N8C0	B441374/NEI
	95.00	115.00	14.50	13.30	RUM4E0950-N8C0	B452374/NEI
	100.00	113.00	13.50	12.70	RUM0E1000-N8C0	B444393/NEI
	100.00	115.00	11.50	10.60	RUM1E1000-N8C0	B452393/1/NEI
	100.00	115.00	12.50	11.50	RUM2E1000-N8C0	B452393/NEI
	100.00	120.00	12.00	11.20	RUM3E1000-N8C0	B472393/1/NEI
	100.00	120.00	14.50	13.40	RUM4E1000-N8C0	B472393/NEI
	105.00	115.00	11.00	10.00	RUM0E1050-N8C0	B452413/NEI
	105.00	125.00	12.50	11.40	RUM3E1050-N8C0	B492413/NEI
	110.00	125.00	12.00	11.20	RUM0E1100-N8C0	B492433/NEI
	110.00	130.00	12.50	11.40	RUM1E1100-N8C0	B511433/NEI
	110.00	135.00	15.50	14.20	RUM2E1100-N8C0	B531433/NEI
	120.00	132.70	10.00	9.20	RUM1E1200-N8C0	B522472/NEI
	120.00	135.00	12.50	11.60	RUM2E1200-N8C0	B531472/NEI
	120.00	140.00	12.50	11.40	RUM3E1200-N8C0	B551472/NEI
	120.00	145.00	18.80	17.50	RUM4E1200-N8C0	B570472/NEI
	125.00	150.00	14.50	13.10	RUM2E1250-N8C0	B590492/NEI
	130.00	145.00	13.00	12.00	RUM2E1300-N8C0	B570511/1/NEI
	130.00	145.00	15.00	14.00	RUM3E1300-N8C0	B570511/NEI
	130.00	150.00	16.00	14.80	RUM4E1300-N8C0	B590511/NEI
	133.35	158.75	14.00	12.60	RUM0E1333-N8C0	B625525/1/NEI
	135.00	150.00	14.00	13.00	RUM0E1350-N8C0	B590531/1/NEI
	135.00	155.00	16.00	14.80	RUM1E1350-N8C0	B610531/NEI
	135.00	160.00	14.00	12.70	RUM2E1350-N8C0	B629531/NEI
	140.00	155.00	13.00	12.00	RUM0E1400-N8C0	B610551/NEI
	140.00	160.00	12.50	11.40	RUM1E1400-N8C0	B629551/NEI
	140.00	160.00	14.50	13.40	RUM2E1400-N8C0	B629551/1/NEI
	140.00	170.00	22.80	21.20	RUM3E1400-N8C0	B669551/NEI
	145.00	157.70	10.00	9.20	RUM0E1450-N8C0	B620570/NEI
	150.00	170.00	14.50	13.40	RUM1E1500-N8C0	B669590/1/NEI
	160.00	175.00	16.00	15.50	RUM1E1600-N8C0	B688629/NEI
	160.00	180.00	14.50	13.30	RUM2E1600-N8C0	B708629/NEI
	165.00	184.00	16.00	14.80	RUM0E1650-N8C0	B728649/NEI
	165.00	195.00	20.40	18.70	RUM1E1650-N8C0	B767649/NEI
	175.00	200.00	23.00	21.55	RUM1E1750-N8C0	B787688/1/NEI
	180.00	200.00	14.50	13.30	RUM1E1800-N8C0	B787708/NEI

Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



Note	Rod Diameter	Groove Diameter	Groove Width	Seal Width	TSS Article No.	Description
	d_N h11	D₁ H11	L +0.1	B		
	180.00	210.00	20.50	18.90	RUM2E1800-N8C0	B826708/1/NEI
	190.00	210.00	14.50	13.40	RUM0E1900-N8C0	B826748/NEI
	198.00	208.00	12.00	11.30	RUM0E1980-N8C0	B819779/NEI
	200.00	220.00	14.50	13.30	RUM0E2000-N8C0	B866787/NEI
	210.00	230.00	14.50	13.30	RUM0E2100-N8C0	B905826/NEI
	210.00	240.00	22.50	21.00	RUM1E2100-N8C0	B944826/NEI
	220.00	250.00	20.50	18.90	RUM0E2200-N8C0	B984866/NEI
	230.00	260.00	20.50	19.00	RUM0E2300-N8C0	B1023905/NEI
	500.00	540.00	35.00	32.80	RUM0E5000-N8C0	B21261968/NEI
	530.00	570.00	25.00	23.00	RUM0E5300-N8C0	B22442086/NEI
	640.00	680.00	25.00	23.00	RUM0E6400-N8C0	B26772519/NEI
	702.00	752.40	30.00	27.50	RUM0E7020-N8C0	B29612764/NEI
	760.00	820.00	35.00	32.00	RUM0E7600-N8C0	B32282992/NEI
	785.00	845.00	35.00	32.00	RUM0E7850-N8C0	B33273090/NEI
	845.00	905.00	35.00	32.00	RUM0E8450-N8C0	B35633327/NEI
	921.00	981.00	35.00	32.00	RUM0E9210-N8C0	B38623626/NEI
	1040.00	1110.00	35.00	32.00	RUM0X1040-N8C0	B43704094/NEI
	1195.00	1265.00	35.00	32.00	RUM0X1195-N8C0	B49804705/NEI

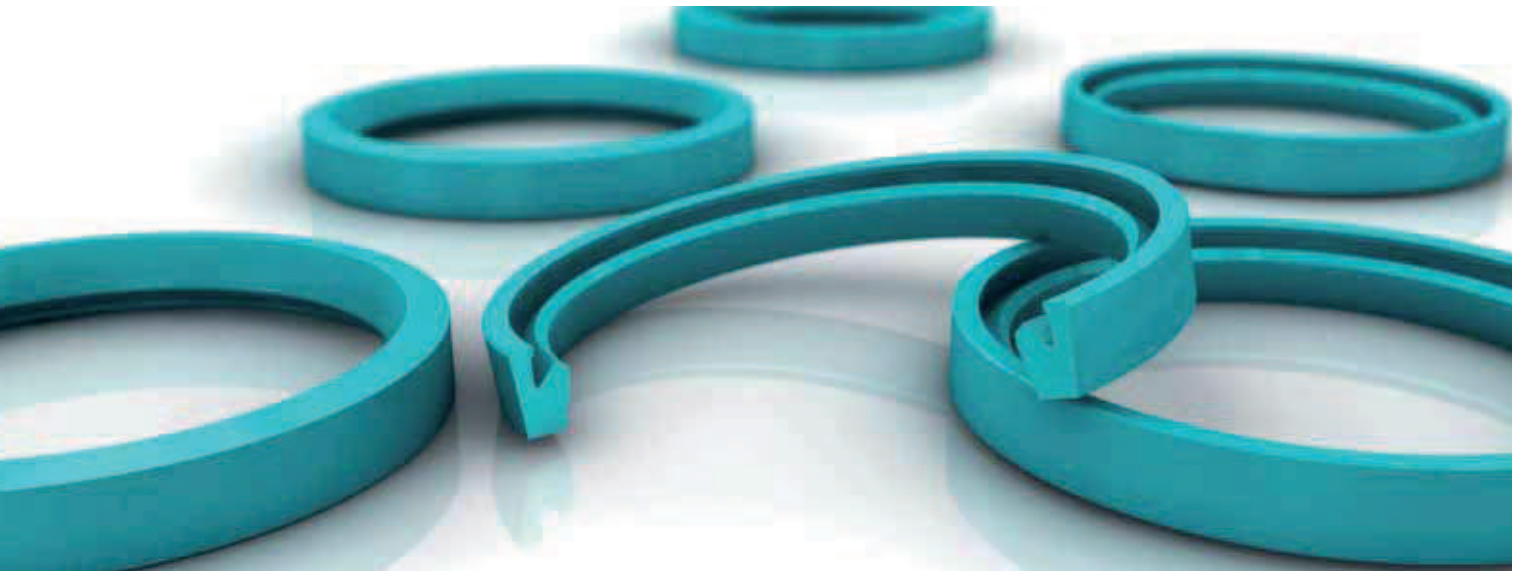
Dimensions printed in **bold** type correspond to ISO/DIN 5597 and ISO 5597/1. Additional dimensions can be delivered on request.

* Split groove



POLYPAC® - Balsele with Back-up Ring

Zurcon[®] L-Cup[®]



Single Acting

Low Friction Properties

Material:
Zurcon[®]
