

Radial Oil Seal





■ Type TRE: DIN 3760 Type AS

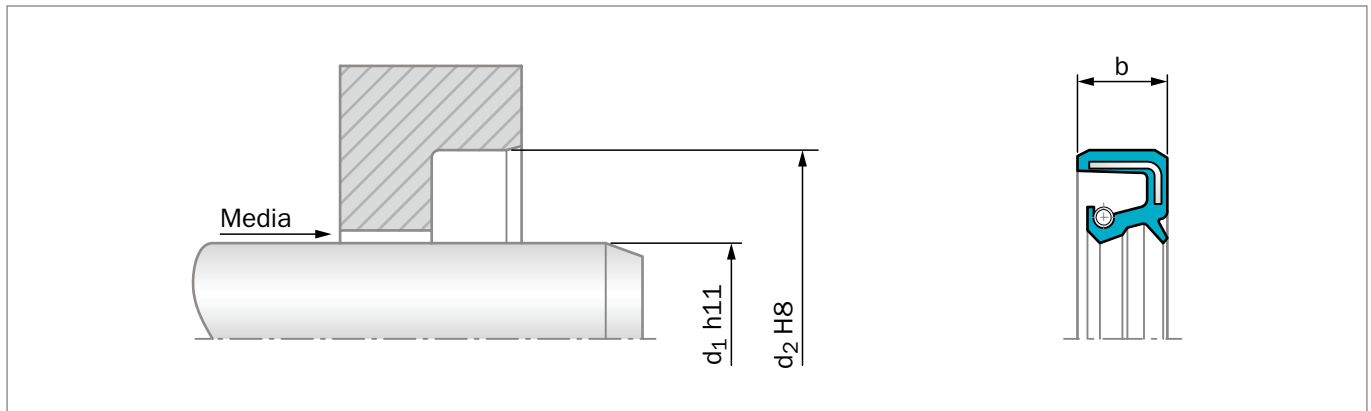


Figure 15: Installation Drawing

GENERAL DESCRIPTION

Trelleborg Sealing Solutions Type TRE are seals with completely rubber-covered outer diameters. Two different O.D. design are available: flat rubber sheath and wavy. The additional dust lip protects the main sealing lip against dust and other fine solid contaminants and therefore this type is recommended for use in polluted environments. To achieve a long lifetime, a suitable lubricant between the two sealing lips should be applied.

FEATURES AND BENEFITS

- Good static sealing
- Compensation of different thermal expansions
- Reduced risk of fretting corrosion
- Effective protection against air-side contaminants
- Higher bore surface roughness is allowed
- Installation in split-housings
- Modern lip design provides low radial forces

APPLICATION EXAMPLES

- Transmission systems (e.g. gearboxes)
- Pumps
- Electrical motors
- Machine tools

OPERATING CONDITIONS

Pressure:	Up to 0.05 MPa
Temperature:	-40 °C to +200 °C (depending on material)
Speed:	Up to 10 m/s (depending on material)
Media:	Mineral and synthetic lubricants (CLP, HLP, APGL, etc.)

Trelleborg Sealing Solutions has carried out several thousand compatibility tests. Please ask your local Customer Solution Center for details.

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 and temperature.



Table 8: Materials

TSS Compound Reference	Standard Compound	Temperature °C	Standard Metal Insert	Standard Spring
N7MMR	NBR (70 Shore A)	-30 °C - 100 °C	Carbon steel	Carbon steel
4N011/4NV11	NBR (75 Shore A)	-30 °C - 100 °C	Carbon steel	Carbon steel
VCBVR	FKM (70 Shore A)	-20 °C - 200 °C	Carbon steel	Stainless steel
4V012	FKM (75 Shore A)	-20 °C - 200 °C	Carbon steel	Stainless steel

Special grades and other materials (ACM, EPDM, HNBR, VMQ) on request.
Metal insert and spring can be supplied in different materials on request.

ORDERING EXAMPLE

Radial Oil Seal Type TRE

TSS Type:	E
Code:	TRE
Dimensions:	Shaft diameter 15 mm Housing diameter 30 mm Width 7 mm
Material:	NBR
Material Code:	N7MMR

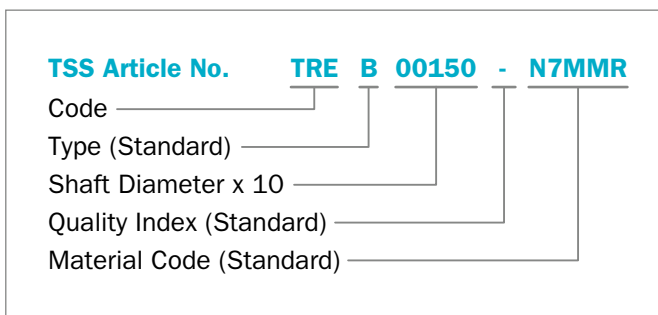


Table 9: Standard Installation Dimensions / TSS Part Number

Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
6	16	5	TRE000060	●	
6	16	7	TREA00060	●	
8	16	5	TRE500080		
8	16	7	TRE000080	●	
8	18	5	TRE300080		●
8	22	7	TRE100080	●	
10	18	6	TRE100100	●	
10	19	7	TRE200100	●	
10	20	5	TRE300100	●	
10	22	7	TREA00100	●	
10	26	7	TREC00100	●	
11	17	4	TRE000110	●	
12	19	5	TRE000120	●	●
12	20	5	TRE400120	●	
12	22	7	TREA00120	●	●
12	25	7	TREE00120	●	
12	28	7	TREC00120	●	●
12	32	7	TRE300120	●	●
12	37	10	TRE900120	●	
14	21	4	TRE300140	●	
14	22	4	TRE400140		●
14	23	5	TRE100140		●

Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
14	24	7	TREA00140	●	●
14	35	7	TRED00140		●
15	24	5	TREH00150	●	
15	24	7	TRE000150	●	
15	25	5	TRE600150		●
15	26	7	TREA00150	●	
15	28	7	TRE100150	●	
15	30	7	TREB00150	●	●
15	30	10	TRE700150		●
15	32	7	TREC00150	●	●
15	35	7	TRED00150	●	
15	42	7	TRE300150	●	
16	22	7	TRE500160	●	
16	28	7	TREA00160	●	●
16	29	4	TRE400160	●	
16	30	7	TREB00160	●	●
16	32	7	TREC00160		●
17	28	6	TRE000170	●	
17	28	7	TREA00170	●	●
17	30	7	TREB00170	●	●

● In one of the preferred materials
○ In other commercial materials



Dimension			TSS Part No.	Material		Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM	d ₁	d ₂	b		NBR	FKM
17	35	7	TRED00170	●		25	40	8	TRE100250	●	
17	40	7	TREE00170	●	●	25	42	7	TREC00250	●	
17	42	7	TRE200170	●		25	44	7	TREQ00250		●
18	28	7	TRE000180	●		25	47	7	TRED00250	●	●
18	30	6	TRE400180	●		25	47	10	TRE700250	●	
18	30	7	TREA00180	●		25	52	7	TREE00250	●	●
18	32	7	TREB00180	●	●	25	52	10	TRE900250	●	
18	47	6	TRE800180	●		25	62	7	TREG00250	●	●
18	47	10	TRE900180	●		26	37	7	TREA00260	●	
20	30	5	TRES00200			26	52	8	TRE100260	●	
20	30	7	TREA00200	●	●	27	37	7	TRE200270	●	
20	32	7	TREB00200	●		28	38	7	TRE700280		●
20	34	7	TRE100200	●		28	40	7	TREA00280	●	●
20	35	7	TREC00200	●	●	28	45	7	TREE00280		●
20	36	7	TRE200200	●		28	47	7	TREB00280	●	
20	40	7	TRED00200	●		28	47	10	TRE400280	●	
20	42	7	TRE300200	●	●	29	52	7	TRE100290	●	
20	47	7	TREE00200	●	●	30	40	7	TREA00300	●	●
20	52	7	TRE600200	●		30	42	6	TRE000300	●	
20	52	8	TREG00200		●	30	42	7	TREB00300	●	●
20	55	7	TREF00200	●	●	30	42	8	TRE100300	●	
20	62	7	TRER00200		●	30	43	8	TRER00300	●	
21.4	29.5	4	TRE000214	●		30	45	8	TRE200300	●	
22	28	4	TRE700220	●	●	30	47	7	TREC00300	●	●
22	32	7	TREA00220	●	●	30	47	8	TREK00300	●	●
22	35	7	TREB00220	●	●	30	50	7	TRE300300	●	●
22	37	7	TRE000220		●	30	50	8	TREPO0300	●	
22	40	7	TREC00220	●	●	30	50	10	TRE600300	●	
22	52	7	TRE600220	●		30	52	7	TRED00300	●	●
22	52	10	TREG00220		●	30	52	10	TRE700300	●	
22	62	6	TRE800220	●		30	55	7	TRE800300	●	●
22	62	10	TREE00220	●		30	55	10	TRE900300	●	
23	32	5	TRE100230	●	●	30	62	7	TREE00300	●	●
23	34	5	TRE200230	●	●	30	62	10	TREF00300	●	●
24	32	7	TRE000240	●		30	72	10	TREG00300	●	●
24	35	7	TREA00240	●		30	80	10	TREI00300	●	
24	40	7	TREC00240	●	●	32	42	5	TRE300320	●	
24	47	7	TRED00240	●	●	32	42	7	TRE800320		
25	32	6	TRER00250		●	32	45	7	TREA00320	●	
25	35	6	TRE000250	●		32	47	7	TREB00320	●	●
25	35	7	TREA00250	●	●	32	50	10	TRE100320	●	
25	38	8	TREK00250	●		32	52	7	TREC00320	●	●
25	40	5	TREF00250	●							
25	40	7	TREB00250	●							

- In one of the preferred materials
- In other commercial materials



Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
32	80	7	TREM00320	●	
34	65	8	TRE400340		●
35	42	4	TREX00350		●
35	45	7	TRE000350	●	
35	47	7	TREA00350	●	●
35	47	8	TRES00350	●	
35	50	7	TREB00350	●	
35	50	8	TREW00350	●	
35	50	10	TREL00350	●	
35	52	6	TRE100350	●	
35	52	7	TREC00350	●	●
35	52	10	TRE200350	●	
35	55	8	TREK00350	●	
35	56	10	TRE300350	●	
35	58	10	TREG00350	●	●
35	62	7	TRED00350	●	
35	62	8	TREU00350	●	
35	62	10	TRE400350	●	●
35	62	12	TRE500350		●
35	65	10	TRE600350	●	
35	65	12	TREP00350	●	
35	72	7	TREH00350		●
35	72	8	TREJ00350	●	
35	72	10	TRE700350	●	●
35	72	12	TRE800350	●	●
35	80	12	TRE000350	●	
36	52	6.3	TRE200360	●	
36	54	7	TRE100360	●	
37	62	7	TRE100370		●
37.5	75	8	TRE000375	●	
38	52	7	TREA00380	●	
38	55	8	TRE100380		●
38	62	7	TREC00380	●	●
38	62	10	TRE500380	●	
38	69	9.5	TREH00380	●	
38	72	10	TRED00380	●	●
38	80	8	TREG00380		●
40	52	5	TRE000400	●	
40	52	7	TREA00400	●	●
40	55	6	TRE000400	●	
40	55	7	TREB00400	●	●
40	55	8	TRE100400	●	●
40	56	8	TREG00400	●	●
40	60	10	TRE400400	●	●

Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
40	62	6	TREMGE003	●	
40	62	7	TREC00400	●	●
40	62	10	TRE600400	●	●
40	62	12	TREJ00400	●	
40	65	8	TREM00400	●	
40	68	7	TRE700400	●	
40	68	8	TREY00400		●
40	68	10	TREW00400		●
40	72	7	TRED00400	●	●
40	72	10	TRE800400	●	
40	80	7	TRE900400	●	
40	80	10	TREF00400	●	●
40	90	12	TREH00400	●	●
40	90	13.5	TRE000400	●	
42	62	7	TRE300420	●	
42	62	10	TRE800420		●
42	72	8	TREC00420	●	
42	72	10	TRE600420	●	●
44	65	10	TRE000440		●
45	52	4	TREX00450	●	
45	55	7	TREL00450	●	
45	60	7	TRE000450	●	●
45	60	8	TREA00450	●	
45	62	7	TRE100450	●	●
45	62	8	TREB00450	●	●
45	65	7	TREU00450		●
45	65	8	TREC00450	●	●
45	65	10	TRE300450	●	●
45	68	10	TRE500450	●	
45	70	10	TRE000450	●	
45	72	8	TRED00450	●	●
45	75	7	TRE800450	●	●
45	75	8	TREI00450	●	●
45	75	10	TRE900450	●	●
45	80	10	TREF00450	●	
45	85	8	TRET00450	●	
45	85	10	TREG00450	●	●
45	90	10	TREH00450	●	●
45	100	8	TREW00450	●	
47	90	10	TRE000470	●	
48	62	8	TREA00480	●	●
48	65	10	TRE000480	●	

- In one of the preferred materials
- In other commercial materials



Dimension			TSS Part No.	Material		Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM	d ₁	d ₂	b		NBR	FKM
48	68	10	TRE100480	●		58	80	10	TRE000580	●	●
48	70	10	TRE500480		●	60	72	8	TREL00600	●	●
48	72	7	TRE200480	●		60	75	6	TREJ00600	●	
48	72	8	TREB00480	●		60	75	8	TREA00600	●	●
48	72	10	TRE700480		●	60	80	6	TREE00600	●	
48	72	12	TRE300480	●		60	80	8	TREB00600	●	●
48	90	13	TRE600480	●		60	80	10	TRE100600	●	●
50	62	7	TRE200500	●		60	82	9	TRE200600	●	
50	65	8	TREA00500	●	●	60	85	8	TREC00600	●	●
50	68	7	TREK00500	●		60	85	10	TRE300600	●	
50	68	8	TREB00500	●	●	60	90	8	TRED00600	●	●
50	68	9	TREG00500			60	90	8	TREN00600	●	
50	70	10	TRE100500	●	●	60	90	10	TRE400600		●
50	72	7	TREF00500	●		60	95	8	TREK00600		●
50	72	8	TREC00500	●	●	60	95	10	TRE500600	●	
50	72	10	TRE300500	●	●	60	100	10	TREM00600	●	●
50	75	10	TRE500500	●	●	60	110	8	TRE900600	●	
50	80	8	TRED00500	●	●	60	110	10	TRE700600	●	●
50	80	10	TRE600500	●		60	110	13	TREG00600	●	
50	90	8	TRE800500	●	●	62	110	10	TRE100620	●	
50	90	10	TRE900500	●	●	62	120	12	TRE200620	●	
50	100	10	TREM00500		●	64	85	10	TRE100640		●
50	110	10	TREH00500		●	65	80	8	TRE000650	●	●
52	62	8	TRE600520		●	65	85	10	TREA00650	●	●
52	68	8	TREA00520	●	●	65	85	12	TREG00650	●	
52	72	8	TREB00520	●	●	65	85	13	TRE300650		●
52	85	10	TRE400520	●		65	90	10	TREB00650	●	●
52	100	10	TRE500520	●		65	100	10	TREC00650	●	●
55	68	8	TRE000550	●		65	110	10	TRED00650	●	●
55	70	8	TREA00550	●	●	65	120	13	TREF00650	●	
55	72	7	TREE00550	●		68	90	10	TREA00680	●	
55	72	8	TREB00550	●	●	68	92	10	TRE400680	●	
55	72	10	TRE200550	●	●	68	110	13	TRE100680	●	
55	75	8	TRE300550	●	●	70	85	8	TRE000700	●	
55	75	12	TRE500550	●		70	90	7	TRE800700	●	
55	80	8	TREC00550	●	●	70	90	10	TREA00700	●	●
55	80	10	TRE600550	●	●	70	100	10	TREB00700	●	●
55	85	10	TRE700550	●		70	110	8	TRE700700	●	
55	90	5	TRE100550	●		70	110	13	TRE400700	●	
55	90	8	TREG00550	●	●	70	125	12	TRE600700	●	
55	90	10	TRE800550	●		70	160	12	TREG00700	●	
55	100	8	TRED00550	●	●	72	86	7	TRE100720	●	
55	100	10	TRE900550	●							
57	80	12	TRE000570		●						

- In one of the preferred materials
- In other commercial materials



Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
72	95	10	TREA00720	●	
72	95	12	TRE000720	●	
72	100	10	TREB00720		●
72	110	13	TRE400720	●	
72	140	12	TRE300720	●	
75	90	8	TRE400750	●	
75	90	10	TREC00750		●
75	95	9	TRE600750	●	
75	95	10	TREA00750	●	●
75	100	10	TREB00750	●	●
75	110	10	TRED00750		●
75	115	10	TRE800750	●	
75	120	12	TRE300750	●	
78	100	10	TREA00780	●	
79	120	13	TRE000790	●	
80	95	8	TREC00800	●	
80	100	7	TRE000800	●	●
80	100	10	TREA00800	●	●
80	100	13	TRE100800	●	●
80	105	13	TRE200800	●	●
80	110	10	TREB00800	●	
80	115	10	TRE300800	●	●
80	120	13	TRE400800	●	
80	140	13	TRE900800	●	
80	140	15	TRE600800	●	
85	105	12	TRE800850		●
85	110	12	TREA00850	●	●
85	110	13	TRE200850		●
85	120	12	TREB00850	●	●
85	130	10	TRE400850	●	
85	130	12	TRE700850	●	●
85	132	12	TRED00850		●
85	140	12	TREG00850		●
85	150	12	TRE600850	●	
90	110	7.5	TRE800900	●	●
90	110	8	TRE600900	●	●
90	110	12	TREA00900	●	●
90	120	12	TREB00900	●	●
90	120	13	TRE200900	●	●
90	125	13	TRE700900	●	●
90	140	12	TRE400900	●	
95	110	12	TREC00950		●
95	115	12	TRE000950	●	
95	120	12	TREA00950	●	●

Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM
95	120	13	TRE200950	●	●
95	125	12	TREB00950	●	●
95	130	13	TRE300950	●	
95	140	12	TRED00950		●
97	112	8	TRE000970	●	
100	120	10	TRE001000	●	
100	120	12	TREA01000	●	●
100	125	12	TREB01000	●	
100	125	13	TRE101000	●	
100	130	12	TREC01000	●	
100	130	13	TRE201000	●	●
100	140	12	TRE701000	●	
100	150	12	TRE501000	●	
100	160	14	TRE301000		●
100	180	12	TRE401000	●	
105	120	7	TRE001050	●	
105	125	13	TRE101050	●	
105	130	12	TREA01050	●	●
105	140	12	TREB01050	●	●
110	130	12	TREA01100	●	
110	140	12	TREB01100	●	●
110	140	13	TRE401100	●	●
110	150	13	TRE601100	●	
110	165	12	TRE001100		●
110	170	14	TRE301100	●	
110	215	15	TRE701100	●	
115	130	12	TRE101150	●	
115	140	12	TREA01150	●	●
115	150	12	TREB01150	●	●
115	160	12	TRE301150		●
117	200	15	TRE001170		●
118	150	12	TRE001180	●	
120	140	7.5	TRE701200	●	
120	140	13	TRE001200	●	●
120	142	12	TRE501200	●	
120	150	12	TREA01200	●	●
120	150	15	TRE201200	●	●
120	160	12	TREB01200	●	
120	160	15	TRE601200	●	
120	180	15	TRE401200	●	●
125	150	12	TREA01250	●	●
125	155	14	TRE301250	●	

- In one of the preferred materials
- In other commercial materials



Dimension			TSS Part No.	Material		Dimension			TSS Part No.	Material	
d ₁	d ₂	b		NBR	FKM	d ₁	d ₂	b		NBR	FKM
127	158.75	17.46	TRE001270		●	180	215	16	TRE501800		●
130	150	10	TREF01300		●	180	220	16	TRE401800	●	
130	150	12	TRE301300		●	185	210	13	TRE101850	●	
130	160	7.5	TRE401300	●		190	215	15	TRE401900	●	
130	160	12	TREA01300	●	●	190	220	12	TRE001900	●	
130	160	15	TRE001300	●	●	190	220	15	TREA01900	●	●
130	170	12	TREB01300	●		195	215	15	TRE201950	●	
132	152	6	TRE101320	●		200	225	8.5	TRE202000	●	
135	160	15	TRE001350	●		200	230	15	TREA02000	●	●
135	170	10	TRE301350	●		210	240	15	TREA02100	●	
135	170	12	TREA01350	●	●	220	250	15	TREA02200	●	●
140	160	10	TRE801400	●		230	260	15	TREA02300	●	
140	160	12	TRE601400		●	240	270	15	TREA02400	●	○
140	160	13	TRE001400	●		240	320	20	TRE002400		●
140	170	12	TRE201400	●		250	280	11	TRE102500	●	
140	170	13	TRE901400		●	250	280	15	TREA02500	●	●
140	170	15	TREA01400	●		260	280	16	TRE002600	●	●
140	180	12	TRE501400		●	260	290	16	TRE102600	●	●
140	210	15	TRE301400	●		260	300	20	TREA02600	●	●
144	160	12	TRE001440	●		265	290	15	TRE002650	●	
145	175	15	TREA01450	●	●	280	320	20	TREA02800	●	●
150	170	10	TRE101500		●	300	340	16	TRE103000	●	○
150	170	12	TRE301500		●	300	340	20	TREA03000	○	○
150	180	15	TREA01500	●	●	320	360	20	TREA03200	○	○
155	174	12	TRE401550		●	350	380	16	TRE003500	●	●
155	180	15	TRE001550	●	●	360	400	20	TREA03600	○	○
155	190	13	TRE301550		●	380	420	20	TREA03800	○	
160	185	15	TRE601600	●	●	394	420	16	TRE003940	○	
160	190	15	TREA01600	●	●	420	450	12	TRE104200	●	
160	200	15	TRE001600	●		420	460	20	TREA04200	○	
160	210	15	TRE401600	●		440	480	20	TREA04800	○	
160	240	14	TRE701600	●		920	970	20	TRE009200		
165	190	8	TRE101650	●							
165	190	13	TRE201650	●	●						
166	179	8	TRE001660		●						
170	185	9.5	TRE301700		●						
170	195	7.5	TRE401700	●							
170	200	15	TREA01700	●	●						
174	190	5	TRE001740	●							
175	205	15	TRE001750	●							
178	205	15	TREA01780	●							
180	200	13	TRE101800	●							
180	210	15	TREA01800	●	●						
180	215	15	TRE201800	●							

- In one of the preferred materials
- In other commercial materials