

SPOR 31/SPOR 30

Description

Product group	Rod seal
Design	POR PTFE seal with an O-ring energising element
Profile no.	30/31
Specification	Z suitable for two-sided pressure load (30) E suitable for one-sided pressure load (31)
Seal material	PTFE 00 9807
O-ring material	NBR 70 0100

Operational application limits

Pressure (MPa):	≤40
Temperature (°C):	-30 to +100
Running speed (m/s):	≤15

Media

Hydraulic oils acc. to DIN 51524 Part 1 – 3, lubricating oils, mineral oil based lubricating greases, highly non-flammable hydraulic fluids HFA, HFB, HFC acc. to VDMA 24317

Function

The SPOR seal consists of a PTFE sealing element, which is energised by an O-Ring. This results in an exceptionally good sealing function under high loads and good static sealing performance. Whereas the SPOR 30 design is double-acting, the SPOR 31 design can only be used in single-acting applications. The SPOR 30 and 31 are frequently used in tandem or in combination with other sealing elements as the primary or secondary seal in order to guarantee no leakage.

Installation

For small diameters, axially accessible installation housings are required. For larger diameters, the seals can be installed in closed installation housings. Subsequent calibration is necessary (see Installation chapter on page 9).

Remarks

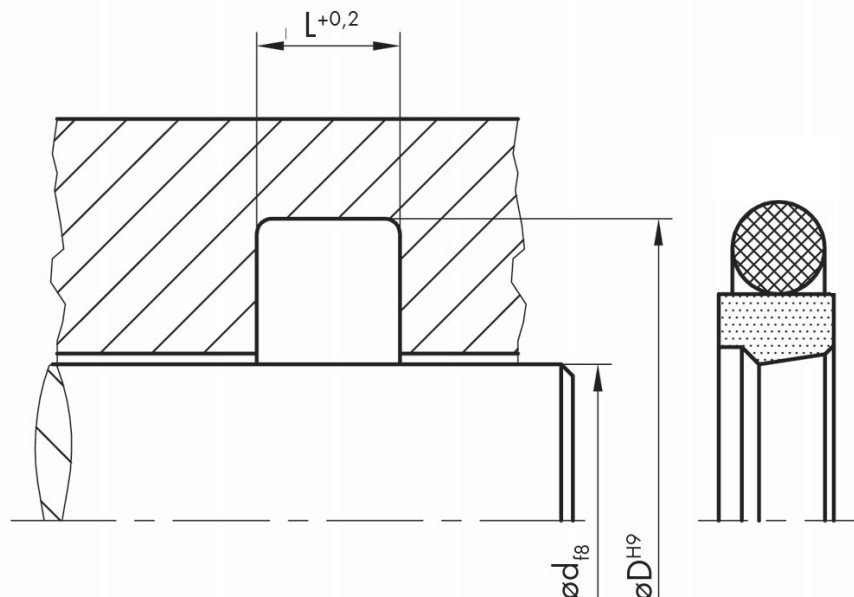
The standard for this design is a combination of PTFE-Bronze/NBR 70. Depending on the area of application, other materials such as PTFE-Glass, PTFE-Graphite and PTFE-carbon for the seal element and EPDM, FKM, VMQ etc. for the energising element are available. Sufficient guiding of the rod using suitable guide elements is necessary.

Order code

Please include our item numbers in your order. Should you require non-standard dimensions, materials or material combinations, please use the order code on page 12.

Any seal. Any time.

All the items in our standard programme (marked red) are standard stock items. For all other items, please check the availability at www.dichtomatik.de.



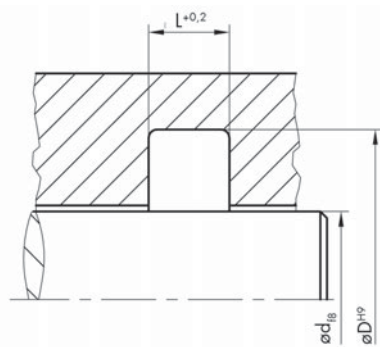
SPOR 31/SPOR 30

Sizes

Item No.	Code	d	D	L
163426	SPOR 31 E	3	7.9	2.2
76801	SPOR 31 E	4	8.9	2.2
77014	SPOR 30 Z	4	8.9	2.2
76802	SPOR 31 E	5	9.9	2.2
77015	SPOR 30 Z	5	9.9	2.2
76803	SPOR 31 E	6	10.9	2.2
77016	SPOR 30 Z	6	10.9	2.2
172390	SPOR 30 Z	6	13.3	3.2
81445	SPOR 31 E	7.9	12.8	2.2
76806	SPOR 31 E	8	12.9	2.2
77019	SPOR 30 Z	8	12.9	2.2
76805	SPOR 31 E	8	15.3	3.2
77018	SPOR 30 Z	8	15.3	3.2
108025	SPOR 31 E	8.5	13.4	2.2
76808	SPOR 31 E	10	14.9	2.2
77021	SPOR 30 Z	10	14.9	2.2
76807	SPOR 31 E	10	17.3	3.2
77020	SPOR 30 Z	10	17.3	3.2
75301	SPOR 31 E	12	16.9	2.2
77023	SPOR 30 Z	12	16.9	2.2
76809	SPOR 31 E	12	19.3	3.2
77022	SPOR 30 Z	12	19.3	3.2
83934	SPOR 30 Z	12	22.2	3.2
76811	SPOR 31 E	14	18.9	2.2
77025	SPOR 30 Z	14	18.9	2.2
76810	SPOR 31 E	14	21.3	3.2
77024	SPOR 30 Z	14	21.3	3.2
114974	SPOR 31 E	14	21.5	3.2
157396	SPOR 31 E	14	24.7	4.2
76812	SPOR 31 E	15	19.9	2.2
76813	SPOR 31 E	15	22.3	3.2
127225	SPOR 30 Z	15	22.3	3.2
75302	SPOR 31 E	16	20.9	2.2
77026	SPOR 30 Z	16	20.9	2.2
76041	SPOR 30 Z	16	23.3	3.2
76815	SPOR 31 E	18	22.9	2.2
74971	SPOR 30 Z	18	22.9	2.2
76814	SPOR 31 E	18	25.3	3.2
77027	SPOR 30 Z	18	25.3	3.2
75330	SPOR 31 E	20	27.3	3.2
77028	SPOR 30 Z	20	27.3	3.2
76816	SPOR 31 E	20	30.7	4.2
76070	SPOR 30 Z	20	30.7	4.2
114978	SPOR 31 E	20	31	4.2
76818	SPOR 31 E	22	29.3	3.2
77030	SPOR 30 Z	22	29.3	3.2
76817	SPOR 31 E	22	32.7	4.2
77029	SPOR 30 Z	22	32.7	4.2
172391	SPOR 31 E	23	30.3	3.2
85886	SPOR 30 Z	24	31.3	3.2
84372	SPOR 31 E	24	34.7	4.2
150789	SPOR 30 Z	24	34.7	4.2
77032	SPOR 30 Z	25	32.3	3.2
72483	SPOR 31 E	25	32.3	3.2
114981	SPOR 31 E	25	32.5	3.2

SPOR 31/SPOR 30

Sizes



Item No.	Code	d	D	L
75942	SPOR 31 E	25	35.7	4.2
77031	SPOR 30 Z	25	35.7	4.2
74972	SPOR 30 Z	26	33.5	3.2
28094	SPOR 31 E	26	36.7	4.2
81649	SPOR 30 Z	27	37.7	4.2
76819	SPOR 31 E	28	35.3	3.2
78214	SPOR 30 Z	28	35.3	3.2
76631	SPOR 31 E	28	38.7	4.2
81307	SPOR 30 Z	28	38.7	4.2
72486	SPOR 31 E	30	37.3	3.2
77033	SPOR 30 Z	30	37.3	3.2
76636	SPOR 31 E	30	40.7	4.2
76042	SPOR 30 Z	30	40.7	4.2
125456	SPOR 31 E	31	41.7	4.2
76509	SPOR 31 E	32	39.3	3.2
77034	SPOR 30 Z	32	39.3	3.2
75941	SPOR 31 E	32	42.7	4.2
76043	SPOR 30 Z	32	42.7	4.2
114984	SPOR 31 E	32	43	4.2
127385	SPOR 31 E	34	44.7	4.2
75303	SPOR 31 E	35	42.3	3.2
83406	SPOR 30 Z	35	42.3	3.2
76820	SPOR 31 E	35	45.7	4.2
80154	SPOR 30 Z	35	45.7	4.2
76822	SPOR 31 E	36	43.3	3.2
77036	SPOR 30 Z	36	43.3	3.2
76821	SPOR 31 E	36	46.7	4.2
77035	SPOR 30 Z	36	46.7	4.2
114985	SPOR 31 E	36	47	4.2
76824	SPOR 31 E	38	48.7	4.2
23462	SPOR 30 Z	38	48.7	4.2
76823	SPOR 31 E	38	53.1	6.3
84205	SPOR 30 Z	40	48	4
75304	SPOR 31 E	40	50.7	4.2
76044	SPOR 30 Z	40	50.7	4.2
114986	SPOR 31 E	40	51	4.2
77037	SPOR 30 Z	40	55.1	6.3
72485	SPOR 31 E	40	55.1	6.3
121219	SPOR 31 E	41	51.7	4.2
172404	SPOR 30 Z	41.27	51.98	4.2
76825	SPOR 31 E	42	52.7	4.2
89927	SPOR 30 Z	42	52.7	4.2
76826	SPOR 31 E	42	57.1	6.3
172392	SPOR 31 E	43	53.4	4.2
172393	SPOR 31 E	43	53.7	4.2
77152	SPOR 31 E	43	58.5	6.3
115476	SPOR 31 E	43.5	54.2	4.2
120837	SPOR 30 Z	44.4	55.1	4.2
92768	SPOR 30 Z	44.5	59.6	6.3
76828	SPOR 31 E	45	55.7	4.2
77038	SPOR 30 Z	45	55.7	4.2
114987	SPOR 31 E	45	56	4.2
76827	SPOR 31 E	45	60.1	6.3
75427	SPOR 30 Z	45	60.1	6.3
114964	SPOR 31 E	48	58.7	4.2

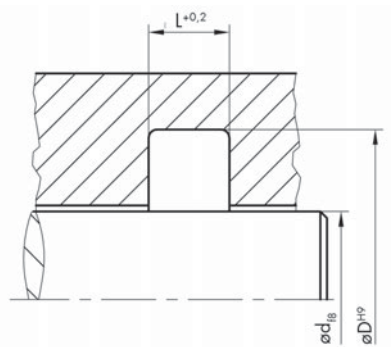
SPOR 31/SPOR 30

Sizes

Item No.	Code	d	D	L
83287	SPOR 30 Z	48	58.7	4.2
114965	SPOR 31 E	48	63.1	6.3
76830	SPOR 31 E	50	60.7	4.2
77040	SPOR 30 Z	50	60.7	4.2
114988	SPOR 31 E	50	61	4.2
76829	SPOR 31 E	50	65.1	6.3
77039	SPOR 30 Z	50	65.1	6.3
114966	SPOR 31 E	52	62.7	4.2
84375	SPOR 31 E	52	67.1	6.3
118257	SPOR 31 E	53.50	64.2	4.2
172395	SPOR 31 E	53.70	64	6.3
130688	SPOR 31 E	54	64.7	4.2
77654	SPOR 31 E	55	65.7	4.2
77953	SPOR 31 E	55	70.1	6.3
81457	SPOR 30 Z	55	70.1	6.3
76831	SPOR 31 E	56	66.7	4.2
77042	SPOR 30 Z	56	66.7	4.2
77041	SPOR 30 Z	56	71.1	6.3
72484	SPOR 31 E	56	71.1	6.3
126828	SPOR 31 E	57	72.1	6.3
172396	SPOR 31 E	58	68.7	4.2
89234	SPOR 31 E	58	73.1	6.3
77044	SPOR 30 Z	60	70.7	4.2
74574	SPOR 31 E	60	70.7	4.2
77043	SPOR 30 Z	60	75.1	6.3
73190	SPOR 31 E	60	75.1	6.3
172397	SPOR 31 E	61	76.1	6.3
114967	SPOR 31 E	63	73.7	4.2
76832	SPOR 31 E	63	78.1	6.3
77045	SPOR 30 Z	63	78.1	6.3
126829	SPOR 31 E	64	79.1	6.3
89925	SPOR 30 Z	65	75.7	4.2
76833	SPOR 31 E	65	80.1	6.3
77046	SPOR 30 Z	65	80.1	6.3
172405	SPOR 30 Z	66	76.7	4.2
86506	SPOR 31 E	67	82.1	6.3
172398	SPOR 31 E	68	78.7	4.2
172399	SPOR 31 E	68	83.1	6.3
77655	SPOR 31 E	70	80.7	4.2
77047	SPOR 30 Z	70	85.1	6.3
69309	SPOR 31 E	70	85.1	6.3
114993	SPOR 31 E	70	85.5	6.3
156233	SPOR 31 E	73	88.1	6.3
95618	SPOR 30 Z	75	85.7	4.2
74575	SPOR 31 E	75	85.7	4.2
76834	SPOR 31 E	75	90.1	6.3
77048	SPOR 30 Z	75	90.1	6.3
130380	SPOR 31 E	76	86.7	4.2
90427	SPOR 31 E	76.2	91.3	6.3
75310	SPOR 30 Z	77	88	4.2
133686	SPOR 31 E	79	94.1	6.3
77332	SPOR 31 E	80	90.7	4.2
83403	SPOR 30 Z	80	90.7	4.2
76089	SPOR 31 E	80	95.1	6.3
77049	SPOR 30 Z	80	95.1	6.3

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Sizes



Item No.	Code	d	D	L
82251	SPOR 30 Z	82	97.1	6.3
122053	SPOR 31 E	82	97.1	6.3
172400	SPOR 31 E	84	94.7	4.2
117068	SPOR 30 Z	85	95.7	4.2
320	SPOR 31 E	85	95.7	4.2
76835	SPOR 31 E	85	100.1	6.3
77050	SPOR 30 Z	85	100.1	6.3
132594	SPOR 31 E	85	105.5	8.1
122047	SPOR 31 E	87	102.1	6.3
77954	SPOR 31 E	90	100.7	4.2
156891	SPOR 30 Z	90	100.7	4.2
76836	SPOR 31 E	90	105.1	6.3
77051	SPOR 30 Z	90	105.1	6.3
114995	SPOR 31 E	90	105.5	6.3
161777	SPOR 31 E	90	110.5	8.1
150296	SPOR 31 E	90.5	101.2	4.2
89235	SPOR 31 E	92	107.1	6.3
76837	SPOR 31 E	95	110.1	6.3
77052	SPOR 30 Z	95	110.1	6.3
149831	SPOR 31 E	95	115.5	8.1
323	SPOR 31 E	100	110.7	4.2
75308	SPOR 30 Z	100	111	4.2
76838	SPOR 31 E	100	115.1	6.3
77053	SPOR 30 Z	100	115.1	6.3
114996	SPOR 31 E	100	115.5	6.3
76839	SPOR 31 E	105	120.1	6.3
77054	SPOR 30 Z	105	120.1	6.3
158806	SPOR 31 E	105	125.5	8.1
134965	SPOR 31 E	106	121.1	6.3
80521	SPOR 31 E	107.5	122.6	6.3
90481	SPOR 31 E	108	123.1	6.3
115962	SPOR 30 Z	110	120.7	4.2
336	SPOR 31 E	110	120.7	4.2
76172	SPOR 31 E	110	125.1	6.3
77055	SPOR 30 Z	110	125.1	6.3
80520	SPOR 31 E	114.5	129.6	6.3
76840	SPOR 31 E	115	130.1	6.3
77056	SPOR 30 Z	115	130.1	6.3
172401	SPOR 31 E	115	135.5	8.1
83405	SPOR 30 Z	120	130.7	4.2
134321	SPOR 31 E	120	130.7	4.2
76841	SPOR 31 E	120	135.1	6.3
77057	SPOR 30 Z	120	135.1	6.3
75291	SPOR 31 E	125	140.1	6.3
77058	SPOR 30 Z	125	140.1	6.3
29549	SPOR 31 E	125	140.5	6.3
118877	SPOR 31 E	125	145.5	8.1
116211	SPOR 30 Z	130	140.7	4.2
76842	SPOR 31 E	130	145.1	6.3
77059	SPOR 30 Z	130	145.1	6.3
88183	SPOR 31 E	130	150.5	8.1
156884	SPOR 31 E	132	147.1	6.3
6732	SPOR 31 E	133.3	148.4	6.3
162195	SPOR 31 E	134.4	149.9	6.3
90748	SPOR 30 Z	135	145.7	4.2

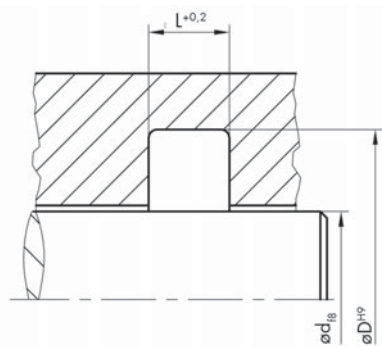
SPOR 31/SPOR 30

Sizes

Item No.	Code	d	D	L
341	SPOR 31 E	135	150.1	6.3
77060	SPOR 30 Z	135	150.1	6.3
122023	SPOR 31 E	137	152.1	6.3
149008	SPOR 30 Z	140	150.7	4.2
77061	SPOR 30 Z	140	155.1	6.3
351	SPOR 31 E	140	155.1	6.3
159496	SPOR 31 E	140	160.5	8.1
88181	SPOR 31 E	145	160.1	6.3
88184	SPOR 31 E	145	165.5	8.1
76843	SPOR 31 E	150	165.1	6.3
77062	SPOR 30 Z	150	165.1	6.3
88182	SPOR 31 E	150	170.5	8.1
82117	SPOR 31 E	152.4	167.5	6.3
83589	SPOR 31 E	155	170.1	6.3
76844	SPOR 31 E	160	175.1	6.3
77063	SPOR 30 Z	160	175.1	6.3
78716	SPOR 31 E	160	180.5	8.1
155849	SPOR 30 Z	160	180.5	8.1
172402	SPOR 31 E	160	185.5	8.1
45551	SPOR 30 Z	162	177.1	6.3
76845	SPOR 31 E	170	185.1	6.3
125486	SPOR 31 E	170	190.5	8.1
81489	SPOR 31 E	175	190.1	6.3
122028	SPOR 30 Z	178	193.1	6.3
122026	SPOR 31 E	178	193.1	6.3
93315	SPOR 30 Z	180	190.7	4.2
75300	SPOR 31 E	180	195.1	6.3
77065	SPOR 30 Z	180	195.1	6.3
9330	SPOR 31 E	180	200.5	8.1
115002	SPOR 31 E	180	201	8.1
76846	SPOR 31 E	190	205.1	6.3
77066	SPOR 30 Z	190	205.1	6.3
159727	SPOR 30 Z	190	210.5	8.1
159734	SPOR 31 E	190	210.5	8.1
88547	SPOR 31 E	198	213.1	6.3
123716	SPOR 30 Z	200	215.1	6.3
76847	SPOR 31 E	200	220.5	8.1
77067	SPOR 30 Z	200	220.5	8.1
81409	SPOR 31 E	209.5	230	8.1
90458	SPOR 30 Z	210	225.1	6.3
76848	SPOR 31 E	210	230.5	8.1
84298	SPOR 30 Z	220	235.1	6.3
76849	SPOR 31 E	220	240.5	8.1
77069	SPOR 30 Z	220	240.5	8.1
159725	SPOR 30 Z	225	240.1	6.3
90476	SPOR 31 E	225	245.5	8.1
90457	SPOR 30 Z	230	245.1	6.3
76850	SPOR 31 E	230	250.5	8.1
133174	SPOR 30 Z	230	254	8.1
150644	SPOR 30 Z	240	255.1	6.3
126553	SPOR 30 Z	240	255.5	6.3
82985	SPOR 31 E	240	255.5	6.3
76851	SPOR 31 E	240	260.5	8.1
77071	SPOR 30 Z	240	260.5	8.1
90059	SPOR 30 Z	250	265.1	6.3

SPOR 31/SPOR 30

Sizes



Item No.	Code	d	D	L
76852	SPOR 31 E	250	270.5	8.1
115005	SPOR 31 E	250	271	8.1
117762	SPOR 31 E	255	275.5	8.1
172403	SPOR 31 E	260	280.5	8.1
76853	SPOR 31 E	260	284	8.1
117293	SPOR 30 Z	265	285.5	8.1
115943	SPOR 30 Z	265	289	8.1
76854	SPOR 31 E	270	294	8.1
77074	SPOR 30 Z	270	294	8.1
76855	SPOR 31 E	280	304	8.1
77075	SPOR 30 Z	280	304	8.1
151358	SPOR 31 E	285	309	8.1
82119	SPOR 31 E	290	305	6.3
76856	SPOR 31 E	290	314	8.1
127474	SPOR 30 Z	290	314.8	8.1
159375	SPOR 31 E	290	320	9.5
121800	SPOR 31 E	295	319	8.1
76857	SPOR 31 E	300	324	8.1
77077	SPOR 30 Z	300	324	8.1
90113	SPOR 30 Z	310	330.5	8.1
76858	SPOR 31 E	310	334	8.1
76859	SPOR 31 E	320	344	8.1
77079	SPOR 30 Z	320	344	8.1
76860	SPOR 31 E	330	354	8.1
77080	SPOR 30 Z	330	354	8.1
76861	SPOR 31 E	340	364	8.1
76862	SPOR 31 E	350	374	8.1
76863	SPOR 31 E	360	384	8.1
77083	SPOR 30 Z	360	384	8.1
115008	SPOR 31 E	360	384.5	8.1
89711	SPOR 31 E	370	390.5	8.1
76864	SPOR 31 E	370	394	8.1
76865	SPOR 31 E	380	404	8.1
76866	SPOR 31 E	390	414	8.1
77086	SPOR 30 Z	390	414	8.1
89712	SPOR 31 E	400	420.5	8.1
76867	SPOR 31 E	400	424	8.1
77087	SPOR 30 Z	400	424	8.1
159575	SPOR 31 E	400	427.3	9.5
76868	SPOR 31 E	410	434	8.1
76869	SPOR 31 E	420	444	8.1
76870	SPOR 31 E	430	454	8.1
77090	SPOR 30 Z	430	454	8.1
76871	SPOR 31 E	440	464	8.1
76872	SPOR 31 E	450	474	8.1
77092	SPOR 30 Z	450	474	8.1
81597	SPOR 31 E	455	479	8.1
76873	SPOR 31 E	460	484	8.1
77093	SPOR 30 Z	460	484	8.1
76874	SPOR 31 E	470	494	8.1
77094	SPOR 30 Z	470	494	8.1
76875	SPOR 31 E	480	504	8.1
77095	SPOR 30 Z	480	504	8.1
121653	SPOR 31 E	488	512	8.1
76876	SPOR 31 E	490	514	8.1

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Item No.	Code	d	D	L
76877	SPOR 31 E	500	524	8.1
77097	SPOR 30 Z	500	524	8.1
77098	SPOR 30 Z	510	534	8.1
76879	SPOR 31 E	520	544	8.1
77100	SPOR 30 Z	530	554	8.1
76882	SPOR 31 E	550	574	8.1
77102	SPOR 30 Z	550	574	8.1
76883	SPOR 31 E	560	584	8.1
76884	SPOR 31 E	570	594	8.1
77104	SPOR 30 Z	570	594	8.1
76885	SPOR 31 E	580	604	8.1
76886	SPOR 31 E	590	614	8.1
173473	SPOR 31 E	600	624	8.1
76888	SPOR 31 E	610	634	8.1
76889	SPOR 31 E	620	644	8.1
76890	SPOR 31 E	630	654	8.1
76891	SPOR 31 E	640	664	8.1
77112	SPOR 30 Z	650	677.3	9.5
150609	SPOR 31 E	670	697.3	9.5
117144	SPOR 31 E	670	705	17.5
127582	SPOR 31 E	680	707.3	9.5
161019	SPOR 31 E	750	777.3	9.5
156565	SPOR 31 E	800	827.3	9.5