



DIN 24960 Beschreibung

Gleitwerkstoffe (Pos.1&2)

Synthetische Kohlen

- A Kohlegrafit, antimonimprägniert
- B Kohlegrafit, kunstharzimpregn.
- B₃ Kohlegrafit, kunstharzimpregn.
- B₅ Kohle, kunstharzgebunden
- C Elektrografit, antimonimprägn.

Metalle

- E Cr-Stahl
- G₁ CrNiMo-Stahl
- S Sonder-Chrommolybdenguß

Karbide

U= Wolframkarbide

- U₁ Wolframkarbid, Co-gebunden
- U₂ Wolframkarbid, Ni-gebunden
- U₂₂ Wolframkarbid, Ni-gebunden eingeschrumpft
- U₃ Wolframkarbid, NiCrMo-gebund.
- U₃₇ Wolframkarbid, NiCrMo-gebund. eingeschrumpft
- U₇ Wolframkarbid, binderfrei

Q= Siliziumkarbide

- Q₁ SiC, drucklos gesintert (∂)
- Q₁₂ SiC, drucklos gesintert eingeschrumpft (∂)
- Q₂ SiC-Si, reaktiongebunden
- Q₂₂ SiC-Si, reaktiongebunden eingeschrumpft
- Q₃ SiC-C-Si, Kohle siliziumimprägn.
- Q₃₂ SiC-C-Si, Kohle siliziumimprägn. eingeschrumpft
- Q₄ C-SiC, Kohle oberflächensiliziert



DIN 24960 Description

Face Materials (Pos.1&2)

Synthetic Carbons

- A Carbon, antimony impregnated
- B Carbon, resin impregnated
- B₃ Carbon, resin impregnated
- B₅ Carbon, resin bonded
- C Electrographite, antimony impr.

Metals

- E Cr-Steel
- G₁ CrNiMo-Steel
- S Special cast CrMo-Steel

Carbides

U= Tungsten Carbides

- U₁ Tungsten Carbide, Co-binder
- U₂ Tungsten Carbide, Ni-binder
- U₂₂ Tungsten Carbide, Ni-binder shrunk-in
- U₃₃ Tungsten Carbide, NiCrMo-binder
- U₃₇ Tungsten Carbide, NiCrMo-binder shrunk-in
- U₇ Tungsten Carbide, binder free

Q= Silicon Carbides

- Q₁ SiC, sintered pressureless (∂)
- Q₁₂ SiC, sintered pressureless shrunk-in (∂)
- Q₂ SiC-Si, reaction bonded
- Q₂₂ SiC-Si, reaction bonded shrunk-in
- Q₃ SiC-C-Si, Carbon Silicon impr.
- Q₃₂ SiC-C-Si, Carbon Silicon impr. shrunk-in
- Q₄ C-SiC, Carbon surface silicated

DIN 24960 Beschreibung

Metalloxide (Keramik)

- V Al-Oxid 99,5%
- V₂ Al-Oxid 97,5%

Kunststoffe

- Y₁ PTFE, glasfaserverstärkt
- Y₂ PTFE, Kohleverstärkt

Nebendichtungen (Pos.3)

Elastomere, nicht ummantelt

- B Butyl-Kautschuk (IIR)
- E Ethylen-Propylene Dian-Kautschuk (EPDM)
- K Perfluor-Kautschuk (Kalrez®, CHEMRAZ®)
- N Chloropren-Kautschuk (CR)
- P Nitril-Butadien-Kautschuk (NBR)
- S Silikon-Kautschuk (MVQ)
- V Fluor-Kautschuk (FPM-VITON®)

Elastomere, ummantelt

- M₁ FPM, doppelt PTFE ummantelt
- M₂ EPDM, doppelt PTFE ummantelt
- M₃ MVQ, doppelt PTFE ummantelt
- M₄ CR, doppelt PTFE ummantelt
- M₅ FEP mit VITON® Kern
- M₇ FPM doppelt PTFE ummantelt / PTFE Massiv

Nicht-Elastomere

- G Reingraphit
- T PTFE massiv
- T₂ PTFE, glasfaserverstärkt
- T₃ PTFE, kohleverstärkt
- T₁₂ PTFE, kohlegrafitverstärkt
- Y₁ Flachdichtung, Asbestfrei

Material

DIN 24960 Description

Metal Oxides (Ceramics)

- V Al-Oxide 99,5%
- V₂ Al-Oxide 97,5%

Plastics

- Y₁ PTFE, Glasfibre reinforced
- Y₂ PTFE, Carbon reinforced

Secondary Seal Components (Pos.3)

Elastomers, not wrapped

- B Butyl Rubber (IIR)
- E Ethylene Propylene Rubber (EPDM)
- K Perfluorocarbon Rubber (Kalrez®, Chemraz®)
- N Chloroprene Rubber (CR)
- P Nitrile-Butadiene-Rubber (NBR)
- S Silicone Rubber (MVQ)
- V Fluorcarbon Rubber (FPM, VITON®)

Elastomers, wrapped

- M₁ FPM, double PTFE wrapped
- M₂ EPDM, double PTFE wrapped
- M₃ MVQ, double PTFE wrapped
- M₄ CR, double PTFE wrapped
- M₅ FEP with VITON® Core
- M₇ FPM double PTFE wrapped / PTFE solid

Non-Elastomers

- G Pure Graphite
- T PTFE solid
- T₂ PTFE, Glasfibre reinforced
- T₃ PTFE, Carbon reinforced
- T₁₂ PTFE, Carbon Graphite reinforced
- Y₁ Static Seal, Asbestos free

DIN 24960 Beschreibung

Feder und andere

Metallteile (Pos. 4&5)

Federwerkstoffe

- G CrNiMo-Stahl
- M Hastelloy® C4 (2.4610)

andere Metallteile

- D C-Stahl
- E Cr-Stahl (1.4122)
- F CrNi-Stahl (1.4301)
- F₁ spez. CrNi-Stahlguß (1.4313)
- G CrNiMo-Stahl 1.4401, 1.4571, 1.4581
- G₁ CrNiMo-Stahl (1.4462)
- G₂ CrNiMo-Stahl (1.4439)
- G₃ CrNiMo-Stahl (1.4539)
- M Hastelloy® C4 (2.4610)
- M₁ Hastelloy® B2 (2.4617)
- M₃ Carpenter® 20Cb3 (2.4660)
- M₄ Monel® K500 (2.4375)
- M₅ Hastelloy® C-276 (2.4819)
- T₁ CrNiMoCuNb-Stahl (1.4505)
- T₂ Rein Titan (3.7035)
- T₃ Inconel® 625 (2.4856)
- T₄ Carpenter® 42 (1.3917)
- T₅ Incoloy® 800 (1.4876)
- T₆ AM 350 (Sonderlegierung)

DIN 24960 Description

Spring and other

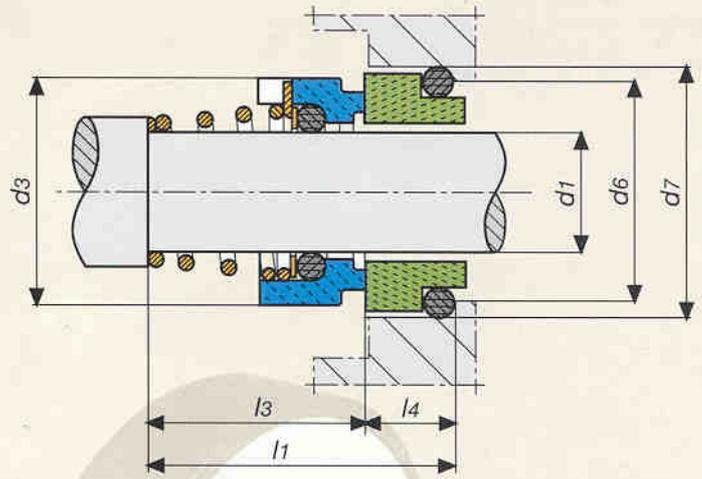
Metal Parts (Pos. 4&5)

Spring Materials

- G CrNiMo-Steel
- M Hastelloy® C4 (2.4610)

other Metal parts

- D C-Steel
- E Cr-Steel (1.4122)
- F CrNi-Steel (1.4301)
- F₁ Special CrNi-Cast-Steel (1.4313)
- G CrNiMo-Steel (1.4401, 1.4571, 1.4581)
- G₁ CrNiMo-Steel (1.4462)
- G₂ CrNiMo-Steel (1.4439)
- G₃ CrNiMo-Steel (1.4539)
- M Hastelloy® C4 (2.4610)
- M₁ Hastelloy® B2 (2.4617)
- M₃ Carpenter® 20Cb3 (2.4660)
- M₄ Monel® K500 (2.4375)
- M₅ Hastelloy® C-276 (2.4819)
- T₁ CrNiMoCuNb-Steel (1.4505)
- T₂ Pure Titanium(3.7035)
- T₃ Inconel® 625 (2.4856)
- T₄ Carpenter® 42 (1.3917)
- T₅ Incoloy® 800 (1.4876)
- T₆ AM 350 (Special Alloy)



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
10	19,00	15,00	21,00	7,00	17,00	22,00
12	21,00	18,00	23,00	7,00	19,00	25,00
14	23,00	22,00	25,00	7,00	21,00	29,00
15	24,00	22,00	27,00	7,00	23,00	29,00
16	26,00	23,00	27,00	7,00	23,00	30,00
18	29,00	24,00	33,00	10,00	27,00	34,00
19	31,00	25,00	35,00	10,00	29,00	35,00
20	31,00	25,00	35,00	10,00	29,00	35,00
22	33,00	25,00	37,00	10,00	31,00	35,00
24	35,00	27,00	39,00	10,00	33,00	37,00
25	36,00	27,00	40,00	10,00	34,00	37,00
28	40,00	29,00	43,00	10,00	37,00	39,00
30	43,00	30,00	45,00	10,00	39,00	40,00
32	46,00	30,00	48,00	10,00	42,00	40,00
33	46,00	39,00	48,00	10,00	42,00	49,00
35	49,00	39,00	50,00	10,00	44,00	49,00
38	53,00	42,00	56,00	13,00	49,00	55,00
40	56,00	42,00	58,00	13,00	51,00	55,00
43	59,00	47,00	61,00	13,00	54,00	60,00
45	61,00	47,00	63,00	13,00	56,00	60,00
48	64,00	47,00	66,00	13,00	59,00	60,00
50	66,00	46,00	70,00	14,00	62,00	60,00
53	69,00	56,00	73,00	14,00	65,00	70,00
55	71,00	56,00	75,00	14,00	67,00	70,00
58	76,00	56,00	78,00	14,00	70,00	70,00
60	78,00	56,00	80,00	14,00	72,00	70,00
63	81,00	56,00	83,00	14,00	75,00	70,00
65	84,00	66,00	85,00	14,00	77,00	80,00
68	88,00	64,00	90,00	16,00	81,00	80,00
70	90,00	64,00	92,00	16,00	83,00	80,00
75	98,00	64,00	97,00	16,00	88,00	80,00
80	100,00	72,00	105,00	18,00	95,00	90,00
85	107,50	72,00	110,00	18,00	100,00	90,00
90	111,00	72,00	115,00	18,00	105,00	90,00
95	119,00	72,00	120,00	18,00	110,00	90,00
100	124,00	72,00	125,00	18,00	115,00	90,00



Eigenschaften:

- Einzel-Gleitringdichtung
- Konische Feder
- Drehrichtungsabhängig
- Nichtentlastet
- Nach DIN 24960

Einsatzgrenzen:

- Druck $p = 10 \text{ bar}$
- Geschwindigkeit $v = 15 \text{ m/sec.}$
- Temperatur $t = -20+180^\circ\text{C}$



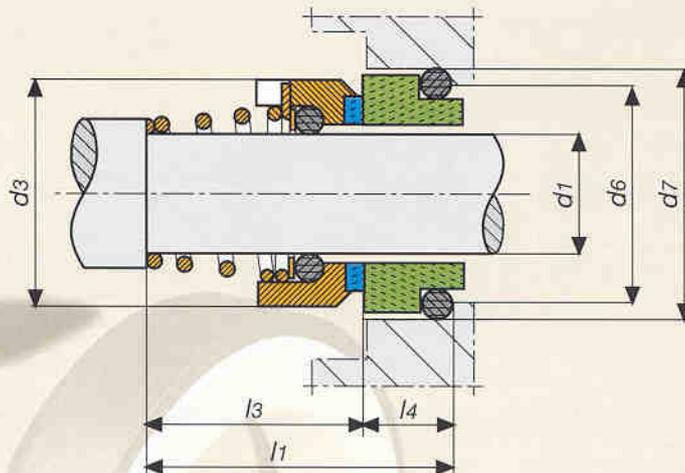
Characteristics:

- Single Spring Seal
- Conical Spring
- Single Directional
- Unbalanced
- According to DIN 24960

Limit of applications:

- Pressure $p = 10 \text{ bar}$
- Speed $v = 15 \text{ m/sec.}$
- Temperature $t = -20+180^\circ\text{C}$

- **Gleitring** = CrNiMo-Stahl
- **Gegenring** = Kohle
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Feder** = 1.4401, 1.4301
- **Sonstige Teile** = 1.4401, 1.4301
- **Rotary** = Stainless Steel
- **Stationary** = Carbon
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Spring** = AISI 316, 304
- **Other Parts** = AISI 316, 304



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
10	19,00	15,50	19,20	6,60	15,50	22,10
12	21,00	15,50	21,60	5,60	17,50	21,10
14	23,00	15,50	24,60	5,60	20,50	21,10
15	24,00	15,50	24,60	6,60	20,50	22,10
16	26,00	17,50	28,00	7,50	22,00	25,00
18	29,00	18,50	30,00	8,00	24,00	26,50
19	31,00	20,00	35,00	7,50	25,00	27,50
20	31,00	20,00	35,00	7,50	29,50	27,50
22	33,00	21,50	35,00	7,50	29,50	29,00
24	35,00	23,00	38,00	7,50	32,00	30,50
25	36,00	24,50	38,00	7,50	32,00	32,00
28	40,00	24,50	42,00	9,00	36,00	33,50
30	43,00	24,50	45,00	10,50	39,20	35,00
32	46,00	28,00	48,00	10,50	42,20	38,50
35	49,00	28,00	52,00	11,00	46,20	39,00
38	53,00	31,00	55,00	10,30	49,20	41,30
40	56,00	34,00	58,00	10,80	52,20	44,80
42	59,00	35,00	62,00	12,00	53,30	47,00
43	59,00	35,00	62,00	12,00	54,30	47,00
45	61,00	36,50	64,00	11,60	55,30	48,10
48	64,00	42,00	68,40	11,60	59,70	53,60
50	66,00	43,00	69,30	11,60	60,80	54,60
55	71,00	47,00	75,40	13,30	66,50	60,30
58	76,00	50,00	78,40	13,30	69,50	63,30
60	78,00	51,00	80,40	13,30	71,50	64,30
65	84,00	52,00	85,40	13,00	76,50	65,00
68	88,00	53,00	91,50	13,70	82,70	66,70
70	90,00	54,00	92,00	13,00	83,00	67,00
75	98,00	55,00	99,00	14,00	92,20	69,00
80	100,00	58,00	104,00	15,00	95,20	73,00



Eigenschaften:

- Einzel-Gleitringdichtung
- Konische Feder
- Drehrichtungsabhängig
- Nichtentlastet
- Nach DIN 24960

Einsatzgrenzen:

- Druck $p = 10 \text{ bar}$
- Geschwindigkeit $v = 15 \text{ m/sec.}$
- Temperatur $t = -20+120^\circ\text{C}$



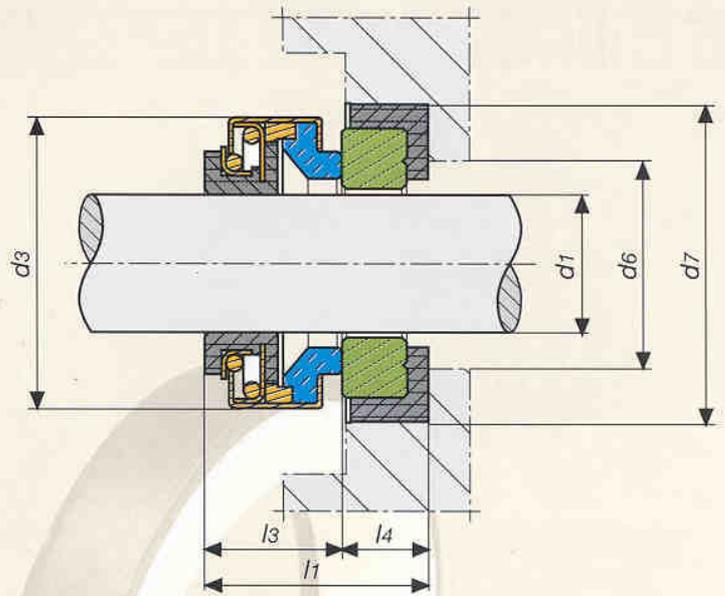
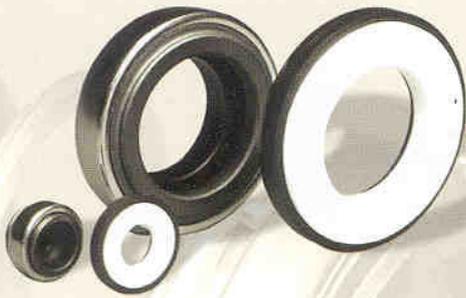
Characteristics:

- Single Spring Seal
- Conical Spring
- Single Directional
- Unbalanced
- According to DIN 24960

Limit of applications:

- Pressure $p = 10 \text{ bar}$
- Speed $v = 15 \text{ m/sec.}$
- Temperature $t = -20+120^\circ\text{C}$

- **Gleitring** = CrNiMo-Stahl, Kohle, SiC, WC
- **Gegenring** = Kohle, Al-Oxid, SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Feder** = 1.4401, 1.4301
- **Sonstige Teile** = 1.4401, 1.4301
- **Rotary** = SS, Carbon, SiC, TC
- **Stationary** = Carbon, Al-Oxide, SiC, TC
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Spring** = AISI 316, 304
- **Other Parts** = AISI 316, 304



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
6	18,00	8,50	22,00	4,00	8,00	12,50
8	18,00	8,50	22,00	4,00	10,00	12,50
8	24,00	11,00	26,00	5,5/8	10,00	16,5/19
10	24,00	11,00	26,00	5,5/8	12,00	16,5/19
11	24,00	11,00	26,00	5,5/8	13,00	16,5/19
12	24,00	13,00	26,00	5,5/8	14,00	18,5/21
13	24,00	13,00	26,00	5,5/8	15,00	18,5/21
14	32,00	13,00	29,5/38	8,00	16,00	21,00
15	35,00	13,00	29,5/38	8,00	17,00	21,00
16	35,00	13,00	29,5/38	8,00	18,00	21,00
16	39,00	13,00	42,00	8,00	18,00	21,00
17	39,00	13,00	42,00	8,00	19,00	21,00
18	39,00	13,00	42,00	8,00	20,00	21,00
19	39,00	13,00	42,00	8,00	21,00	21,00
20	39,00	13,00	42,00	8,00	22,00	21,00
20	42,00	13,00	45,00	10,00	22,00	23,00
22	42,00	14,00	45,00	10,00	24,00	24,00
24	47,00	14,00	50,00	10,00	26,00	24,00
25	47,00	14,00	50,00	10,00	27,00	24,00
28	54,00	15,00	57,00	10,00	31,00	25,00
30	54,00	15,00	57,00	10,00	33,00	25,00
32	54,00	15,00	57,00	10,00	35,00	25,00
35	60,00	16,00	63,00	10,00	38,00	26,00
38	65,00	17,00	68,00	12,00	41,00	29,00
40	65,00	17,00	68,00	12,00	43,00	29,00
45	70,00	20,00	73,00	12,00	48,00	32,00
50	85,00	23,00	88,00	15,00	53,00	38,00
55	85,00	23,00	88,00	15,00	53,00	38,00
60	105,00	30,00	110,00	15,00	63,00	45,00
65	105,00	30,00	110,00	15,00	67,00	45,00
70	105,00	32,00	110,00	15,00	72,00	47,00



Eigenschaften:

Einzel-Gleitringdichtung
 Faltenbalgdichtung
 Drehrichtungsunabhängig
 Nichtentlastet

Einsatzgrenzen:

Druck $p = 6 \text{ bar}$
 Geschwindigkeit $v = 10 \text{ m/sec.}$
 Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

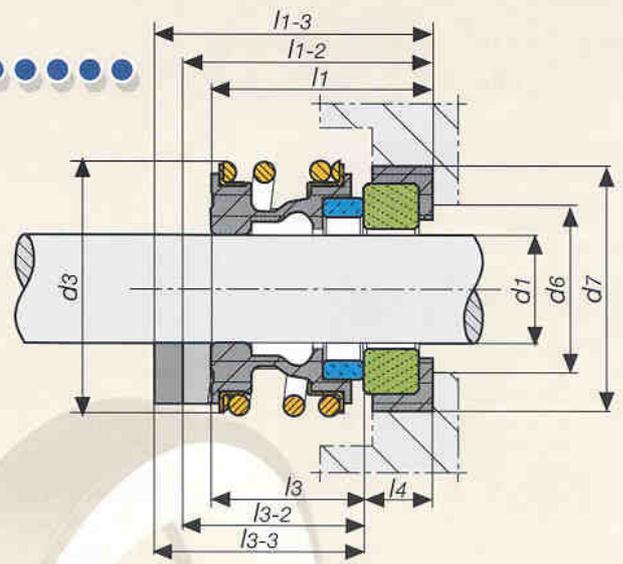
Single Spring Seal
 Bellow Seal
 Double Directional
 Unbalanced

Limit of applications:

Pressure $p = 6 \text{ bar}$
 Speed $v = 10 \text{ m/sec.}$
 Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC, WC
- Gegenring = Al-Oxid, SiC, WC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4301
- Sonstige Teile = 1.4301

- Rotary = Carbon, SiC, TC
- Stationary = Al-Oxide, SiC, TC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 304
- Other Parts = AISI 304



d1	d3	l3	l3-2	l3-3	d7	l4	d6	l1	l1-2	l1-3
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	24,00	14,50	25,90	33,40	21,00	6,60	20,60	21,10	32,50	40
12	24,00	15,00	25,90	33,40	23,00	6,60	22,60	21,60	32,50	40
14	28,00	17,00	28,40	33,40	25,00	6,60	24,60	23,60	35,00	40
15	28,00	17,00	28,40	33,40	27,00	6,60	26,60	23,60	35,00	40
16	28,00	17,00	28,40	33,40	27,00	6,60	26,60	23,60	35,00	40
18	31,00	19,50	30,00	37,50	33,00	7,50	32,60	27,00	37,50	45
20	36,00	21,50	30,00	37,50	35,00	7,50	34,60	29,00	37,50	45
22	36,00	21,50	30,00	37,50	37,00	7,50	36,60	29,00	37,50	45
24	40,50	22,50	32,50	42,50	39,00	7,50	38,60	30,00	40,00	50
25	41,00	23,00	32,50	42,50	40,00	7,50	39,60	30,50	40,00	50
28	47,00	26,50	35,00	42,50	43,00	7,50	42,60	34,00	42,50	50
30	47,00	26,50	35,00	42,50	45,00	7,50	44,60	34,00	42,50	50
32	51,00	27,50	35,00	47,50	48,00	7,50	47,60	35,00	42,50	55
33	51,00	27,50	35,00	47,50	48,00	7,50	47,60	35,00	42,50	55
35	55,00	28,50	35,00	47,50	50,00	7,50	49,60	36,00	42,50	55
38	58,00	30,00	36,00	46,00	56,00	9,00	55,60	39,00	45,00	55
40	60,00	30,00	36,00	46,00	58,00	9,00	57,40	39,00	45,00	55
43	63,00	30,00	36,00	51,00	61,00	9,00	60,60	39,00	45,00	60
45	65,00	30,00	36,00	51,00	63,00	9,00	62,60	39,00	45,00	60
48	69,00	30,50	36,00	51,00	66,00	9,00	65,60	39,50	45,00	60
50	71,00	30,50	38,00	50,50	70,00	9,50	69,60	40,00	47,50	60
53	76,00	33,00	36,50	59,00	73,00	11,00	72,60	44,00	47,50	70
55	78,00	35,00	36,50	59,00	75,00	11,00	74,40	46,00	47,50	70
58	82,00	37,00	41,50	59,00	78,00	11,00	77,50	48,00	52,50	70
60	85,00	38,00	41,50	59,00	80,00	11,00	79,50	49,00	52,50	70
65	90,00	40,00	41,50	69,00	85,00	11,00	84,50	51,00	52,50	80
68	94,00	40,00	48,70	68,70	90,00	11,30	89,50	51,30	60,00	80
70	97,00	40,00	48,70	68,70	92,00	11,30	91,40	51,30	60,00	80
75	102,00	40,00	48,70	68,70	97,00	11,30	96,40	51,30	60,00	80
80	108,00	40,00	48,00	78,00	105,00	12,00	104,20	52,00	60,00	90
85	117,00	41,00	46,00	76,00	110,00	14,00	109,20	55,00	60,00	90
90	126,00	45,00	51,00	76,00	115,00	14,00	114,20	59,00	65,00	90
95	131,00	46,00	51,00	76,00	120,00	14,00	119,20	60,00	65,00	90
100	136,00	47,00	51,00	76,00	125,00	14,00	124,20	61,00	65,00	90



Eigenschaften:

Einzel-Gleitringdichtung
 Faltenbalgdichtung
 Drehrichtungsunabhängig
 Nichtentlastet
 Nach DIN 24960

Einsatzgrenzen:

Druck $p = 12 \text{ bar}$
 Geschwindigkeit $v = 10 \text{ m/sec.}$
 Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

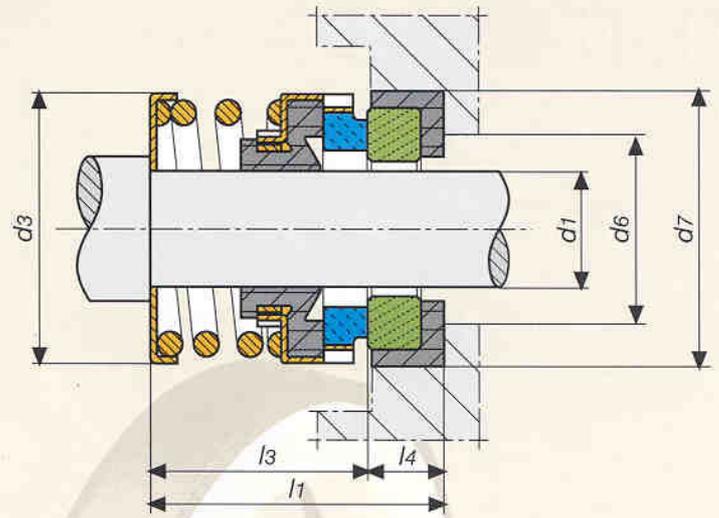
Single Spring Seal
 Bellow Seal
 Double Directional
 Unbalanced
 According to DIN 24960

Limit of applications:

Pressure $p = 12 \text{ bar}$
 Speed $v = 10 \text{ m/sec.}$
 Temperature $t = -20+120^\circ\text{C}$

- **Gleitring** = Kohle, SiC, WC
- **Gegenring** = Al-Oxid, Kohle, CrNiMo-Stahl, SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®
- **Feder** = 1.4401
- **Sonstige Teile** = 1.4401

- **Rotary** = Carbon, SiC, TC
- **Stationary** = Al-Oxide, Carbon, SS, SiC, TC
- **Secondary Seal** = NBR, EPDM, VITON®
- **Spring** = AISI 316
- **Other Parts** = AISI 316



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
12	21,70	23,90	23,00	8,60	19,00	32,50
14	23,90	26,40	25,00	8,60	21,00	35,00
16	26,70	26,40	27,00	8,60	23,00	35,00
18	30,40	27,50	33,00	10,00	27,00	37,50
20	33,40	27,50	35,00	10,00	29,00	37,50
22	33,40	27,50	37,00	10,00	31,00	37,50
24	38,00	30,00	39,00	10,00	33,00	40,00
25	39,30	30,00	40,00	10,00	34,00	40,00
28	42,00	32,50	43,00	10,00	37,00	42,50
30	43,95	32,50	45,00	10,00	39,00	42,50
32	45,80	32,50	48,00	10,00	42,00	42,50
33	45,80	32,50	48,00	10,00	42,00	42,50
35	49,00	32,50	50,00	10,00	44,00	42,50
38	52,80	34,00	56,00	11,00	49,00	45,00
40	55,80	34,00	58,00	11,00	51,00	45,00
43	58,80	34,00	61,00	11,00	54,00	45,00
45	61,00	34,00	63,00	11,00	56,00	45,00
48	64,00	34,00	66,00	11,00	59,00	45,00
50	66,00	34,50	70,00	13,00	62,00	47,50
53	70,65	34,50	73,00	13,00	65,00	47,50
55	71,65	34,50	75,00	13,00	67,00	47,50
58	78,40	39,50	78,00	13,00	70,00	52,50
60	78,40	39,50	80,00	13,00	72,00	52,50
63	81,50	39,50	83,00	13,00	75,00	52,50
65	84,30	39,50	85,00	13,00	77,00	52,50
68	89,65	37,20	90,00	15,30	81,00	52,50
70	89,65	37,20	92,00	15,30	83,00	52,50
75	96,80	44,70	97,00	15,30	88,00	60,00
80	104,00	44,30	105,00	15,70	95,00	60,00
85	107,95	44,30	110,00	15,70	100,00	60,00
90	111,10	49,30	115,00	15,70	105,00	65,00
95	119,00	49,30	120,00	15,70	110,00	65,00
100	124,00	49,30	125,00	15,70	115,00	65,00



Eigenschaften:

- Einzel-Gleitringdichtung
- Faltenbalgdichtung
- Drehrichtungsunabhängig
- Nichtentlastet
- Nach DIN 24960

Einsatzgrenzen:

- Druck $p = 12 \text{ bar}$
- Geschwindigkeit $v = 10 \text{ m/sec.}$
- Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

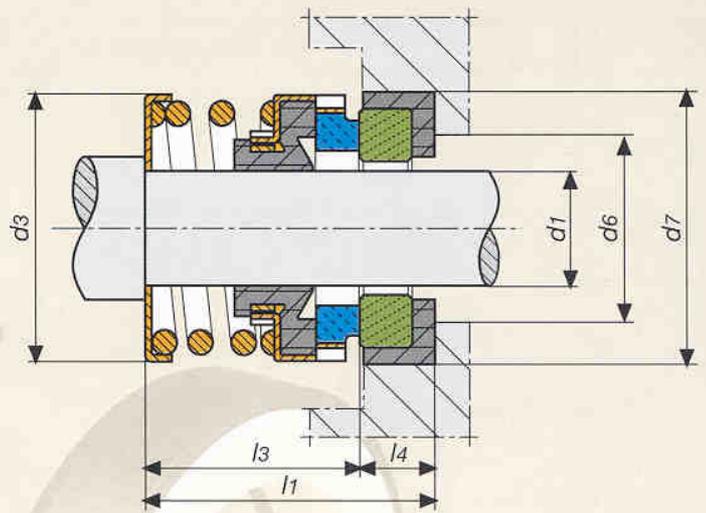
- Single Spring Seal
- Bellow Seal
- Double Directional
- Unbalanced
- According to DIN 24960

Limit of applications:

- Pressure $p = 12 \text{ bar}$
- Speed $v = 10 \text{ m/sec.}$
- Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC, WC
- Gegenring = Al-Oxid, Kohle, CrNi-Stahl, SiC, WC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4401
- Sonstige Teile = 1.4401

- Rotary = Carbon, SiC, TC
- Stationary = Al-Oxide, Carbon, SS, SiC, TC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 316
- Other Parts = AISI 316



Abmessung	d1	d3	l3	d7	l4	d6	l1
Inch	mm	mm	mm	mm	mm	mm	mm
0,375	9,50	22,95	43,65	24,60	8,74	16,00	52,39
0,500	12,70	23,90	43,65	27,79	8,74	19,05	52,39
0,625	15,80	26,70	43,65	30,95	10,32	22,23	53,97
0,750	19,10	31,10	43,65	34,15	10,32	25,40	53,97
0,875	22,20	33,40	43,65	37,30	10,32	28,58	53,97
1,000	25,40	43,20	43,65	40,50	10,32	31,75	53,97
1,125	28,60	46,30	60,33	47,63	11,99	35,72	72,32
1,250	31,70	49,40	60,33	50,80	11,99	38,89	72,32
1,375	34,90	52,60	60,33	53,98	11,99	42,07	72,32
1,500	38,10	55,80	60,33	57,15	11,99	45,24	72,32
1,625	41,20	62,20	60,33	60,35	11,99	48,42	72,32
1,750	44,40	66,00	70,64	63,50	11,99	51,59	82,63
1,875	47,60	66,60	70,64	66,70	11,99	54,75	82,63
2,000	50,80	73,00	70,64	69,85	11,99	58,00	82,63
2,125	53,90	73,30	71,00	73,05	13,50	62,00	84,50
2,250	57,10	78,40	71,00	76,20	13,50	65,00	84,50
2,375	60,30	82,00	71,00	79,40	13,50	68,00	84,50
2,500	63,50	84,90	71,00	82,55	13,50	71,20	84,50
2,625	66,60	88,40	70,00	92,10	15,90	78,35	85,90
2,750	69,80	92,60	70,00	95,25	15,90	81,10	85,90
2,875	73,00	94,85	73,00	98,45	15,90	84,50	88,90
3,000	76,20	101,90	73,00	101,65	15,90	88,10	88,90
3,125	79,40	104,00	79,00	111,15	18,50	93,68	97,50
3,250	82,60	104,00	79,00	114,30	18,50	96,85	97,50
3,375	85,70	108,00	79,00	117,50	18,50	100,00	97,50
3,500	88,90	112,00	79,00	120,65	18,50	103,18	97,50
3,625	92,10	114,00	83,00	123,85	18,50	106,35	101,50
3,750	95,30	119,00	83,00	127,00	18,50	109,52	101,50
3,875	98,40	121,00	86,00	130,20	18,50	112,65	104,50
4,000	101,60	124,00	86,00	133,35	18,50	115,88	104,50



Eigenschaften:

Einzel-Gleitringdichtung
 Faltenbalgdichtung
 Drehrichtungsunabhängig
 Nichtentlastet

Einsatzgrenzen:

Druck $p = 12 \text{ bar}$
 Geschwindigkeit $v = 10 \text{ m/sec.}$
 Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

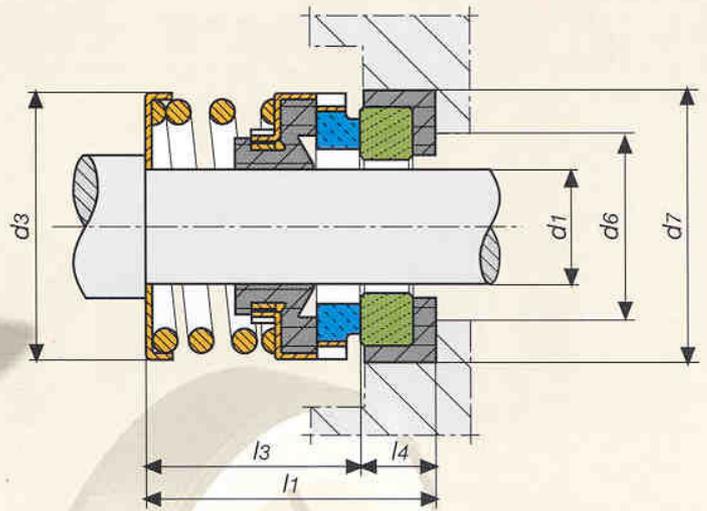
Single Spring Seal
 Bellow Seal
 Double Directional
 Unbalanced

Limit of applications:

Pressure $p = 12 \text{ bar}$
 Speed $v = 10 \text{ m/sec.}$
 Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC
- Gegenring = Al-Oxid, SiC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4401
- Sonstige Teile = 1.4401

- Rotary = Carbon, SiC
- Stationary = Al-Oxide, SiC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 316
- Other Parts = AISI 316



Abmessung	d1	d3	l3	d7	l4	d6	l1
Inch	mm	mm	mm	mm	mm	mm	mm
0,375	9,50	22,95	25,40	24,60	8,74	16,00	34,14
0,500	12,70	23,90	25,40	27,79	8,74	19,05	34,14
0,625	15,80	26,70	25,40	30,95	10,32	22,23	35,72
0,750	19,10	31,10	25,40	34,15	10,32	25,40	35,72
0,875	22,20	33,40	25,40	37,30	10,32	28,58	35,72
1,000	25,40	43,20	25,40	40,50	10,32	31,75	35,72
1,125	28,60	46,30	33,34	47,63	11,99	35,72	45,33
1,250	31,70	49,40	33,34	50,80	11,99	38,89	45,33
1,375	34,90	52,60	33,34	53,98	11,99	42,07	45,33
1,500	38,10	55,80	33,34	57,15	11,99	45,24	45,33
1,625	41,20	62,20	33,34	60,35	11,99	48,42	45,33
1,750	44,40	66,00	40,48	63,50	11,99	51,59	52,47
1,875	47,60	66,60	40,48	66,70	11,99	54,75	52,47
2,000	50,80	73,00	40,48	69,85	11,99	58,00	52,47
2,125	53,90	73,30	41,00	73,05	13,50	62,00	54,50
2,250	57,10	78,40	41,00	76,20	13,50	65,00	54,50
2,375	60,30	82,00	41,00	79,40	13,50	68,00	54,50
2,500	63,50	84,90	41,00	82,55	13,50	71,20	54,50
2,625	66,60	88,40	49,00	92,10	15,90	78,35	64,90
2,750	69,80	92,60	49,00	95,25	15,90	81,10	64,90
2,875	73,00	94,85	49,00	98,45	15,90	84,50	64,90
3,000	76,20	101,90	49,00	101,65	15,90	88,10	64,90
3,125	79,40	104,00	56,00	111,15	18,50	93,68	74,50
3,250	82,60	104,00	56,00	114,30	18,50	96,85	74,50
3,375	85,70	108,00	56,00	117,50	18,50	100,00	74,50
3,500	88,90	112,00	56,00	120,65	18,50	103,18	74,50
3,625	92,10	114,00	59,00	123,85	18,50	106,35	77,50
3,750	95,30	119,00	59,00	127,00	18,50	109,52	77,50
3,875	98,40	121,00	62,00	130,20	18,50	112,65	80,50
4,000	101,60	124,00	62,00	133,35	18,50	115,88	80,50



Eigenschaften:

- Einzel-Gleitringdichtung
- Faltenbalgdichtung
- Drehrichtungsunabhängig
- Nichtentlastet

Einsatzgrenzen:

- Druck $p = 12 \text{ bar}$
- Geschwindigkeit $v = 10 \text{ m/sec.}$
- Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

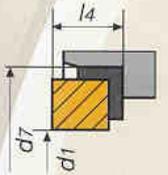
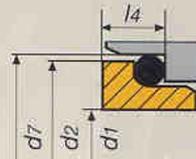
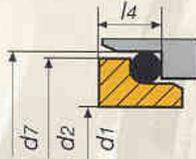
- Single Spring Seal
- Bellow Seal
- Double Directional
- Unbalanced

Limit of applications:

- Pressure $p = 12 \text{ bar}$
- Speed $v = 10 \text{ m/sec.}$
- Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC
- Gegenring = Al-Oxid, SiC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4401
- Sonstige Teile = 1.4401

- Rotary = Carbon, SiC
- Stationary = Al-Oxide, SiC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 316
- Other Parts = AISI 316



C4		C3...	
d1	d2	d7	l4
mm	mm	mm	mm
10	18,80	19,20	6,60
12	21,20	21,60	5,60
14	24,20	24,60	5,60
15	24,20	24,60	6,60
16	27,60	28,00	7,50
18	29,60	30,00	8,00
20	34,60	35,00	7,50
22	34,60	35,00	7,50
24	37,60	38,00	7,50
25	37,60	38,00	7,50
28	41,60	42,00	9,00
30	44,60	45,00	10,50
32	47,60	48,00	10,50
33	49,60	50,00	11,00
35	51,60	52,00	11,00
38	54,60	55,00	10,30
40	57,60	58,00	10,80
43	61,60	62,00	12,00
45	63,60	64,00	11,60
48	68,00	68,40	11,60
50	68,90	69,30	11,60
53	71,80	72,30	12,30
55	74,90	75,40	13,30
58	77,90	78,40	13,30
60	79,90	80,40	13,30
63	82,90	83,40	13,30
65	84,90	85,40	13,00
68	91,00	91,50	13,70
70	91,40	92,00	13,00
75	98,40	99,00	14,00
80	103,20	104,00	15,00
85	108,20	109,00	14,80
90	113,20	114,00	14,80
95	119,50	120,30	15,80
100	122,50	123,30	15,80

C6		C3...-OD	
d1	d2	d7	l4
mm	mm	mm	mm
10	20,60	21,00	6,60
12	22,60	23,00	6,60
14	24,60	25,00	6,60
15	26,60	27,00	6,60
16	26,60	27,00	6,60
18	32,60	33,00	7,50
20	34,60	35,00	7,50
22	36,60	37,00	7,50
24	38,60	39,00	7,50
25	39,60	40,00	7,50
28	42,60	43,00	7,50
30	44,60	45,00	7,50
32	47,60	48,00	7,50
33	47,60	48,00	7,50
35	49,60	50,00	7,50
38	55,60	56,00	9,00
40	57,40	58,00	9,00
43	60,60	61,00	9,00
45	62,60	63,00	9,00
48	65,60	66,00	9,00
50	69,60	70,00	9,50
53	72,60	73,00	11,00
55	74,40	75,00	11,00
58	77,50	78,00	11,00
60	79,50	80,00	11,00
63	82,50	83,00	11,00
65	84,50	85,00	11,00
68	89,50	90,00	11,30
70	91,40	92,00	11,30
75	96,40	97,00	11,30
80	104,20	105,00	12,00
85	109,20	110,00	14,00
90	114,20	115,00	14,00
95	119,20	120,00	14,00
100	124,20	125,00	14,00

C60		C3...-D
d1	d7	l4
mm	mm	mm
10	21,00	6,60
12	23,00	6,60
14	25,00	6,60
15	27,00	6,60
16	27,00	6,60
18	33,00	7,50
20	35,00	7,50
22	37,00	7,50
24	39,00	7,50
25	40,00	7,50
28	43,00	7,50
30	45,00	7,50
32	48,00	7,50
33	48,00	7,50
35	50,00	7,50
38	56,00	9,00
40	58,00	9,00
43	61,00	9,00
45	63,00	9,00
48	66,00	9,00
50	70,00	9,50
53	73,00	11,00
55	75,00	11,00
58	78,00	11,00
60	80,00	11,00
63	83,00	11,00
65	85,00	11,00
68	90,00	11,30
70	92,00	11,30
75	97,00	11,30
80	105,00	12,00
85	110,00	14,00
90	115,00	14,00
95	120,00	14,00
100	125,00	14,00

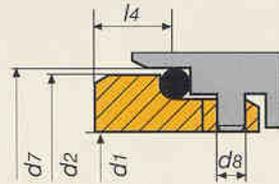
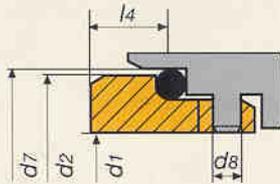


• Gegenring = CrNiMo-Stahl, Kohle, Al-Oxid, SiC, WC



• Stationary = SS, Carbon, Al-Oxide, SiC, TC

STANDARD SEATS FOR SERIES BB1 & BB3



C9 C3...-ODL

d1	d2	d7	l4	d8
mm	mm	mm	mm	mm
10	20,60	21,00	10,00	3,00
12	22,60	23,00	10,00	3,00
14	24,60	25,00	10,00	3,00
15	26,60	27,00	10,00	3,00
16	26,60	27,00	10,00	3,00
18	32,60	33,00	11,50	3,00
20	34,60	35,00	11,50	3,00
22	36,60	37,00	11,50	3,00
24	38,60	39,00	11,50	3,00
25	39,60	40,00	11,50	3,00
28	42,60	43,00	11,50	3,00
30	44,60	45,00	11,50	3,00
32	47,60	48,00	11,50	3,00
33	47,60	48,00	11,50	3,00
35	49,60	50,00	11,50	3,00
38	55,60	56,00	14,00	4,00
40	57,40	58,00	14,00	4,00
43	60,60	61,00	14,00	4,00
45	62,60	63,00	14,00	4,00
48	65,60	66,00	14,00	4,00
50	69,60	70,00	15,00	4,00
53	72,60	73,00	15,00	4,00
55	74,40	75,00	15,00	4,00
58	77,50	78,00	15,00	4,00
60	79,50	80,00	15,00	4,00
63	82,50	83,00	15,00	4,00
65	84,50	85,00	15,00	4,00
68	89,50	90,00	18,00	4,00
70	91,40	92,00	18,00	4,00
75	96,40	97,00	18,00	4,00
80	104,20	105,00	18,20	4,00
85	109,20	110,00	18,20	4,00
90	114,20	115,00	18,20	4,00
95	119,20	120,00	17,20	4,00
100	124,20	125,00	17,20	4,00

C9S C3...-ODLS

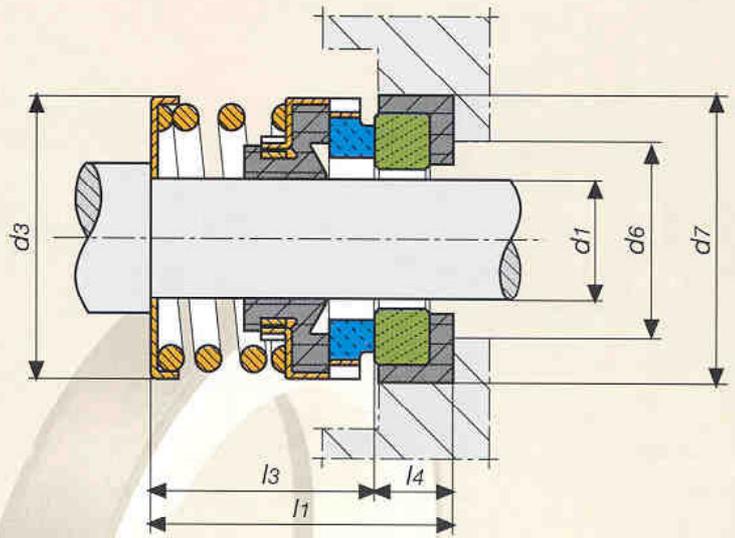
d1	d2	d7	l4	d8
mm	mm	mm	mm	mm
10	20,60	21,00	8,60	4,00
12	22,60	23,00	8,60	4,00
14	24,60	25,00	8,60	4,00
15	26,60	27,00	8,60	4,00
16	26,60	27,00	8,60	5,00
18	32,60	33,00	10,00	5,00
20	34,60	35,00	10,00	5,00
22	36,60	37,00	10,00	5,00
24	38,60	39,00	10,00	5,00
25	39,60	40,00	10,00	5,00
28	42,60	43,00	10,00	5,00
30	44,60	45,00	10,00	5,00
32	47,60	48,00	10,00	5,00
33	47,60	48,00	10,00	5,00
35	49,60	50,00	10,00	5,00
38	55,60	56,00	11,00	5,00
40	57,60	58,00	11,00	5,00
43	60,60	61,00	11,00	5,00
45	62,60	63,00	11,00	5,00
48	65,60	66,00	11,00	5,00
50	69,60	70,00	13,00	5,00
53	72,60	73,00	13,00	5,00
55	74,60	75,00	13,00	5,00
58	77,60	78,00	13,00	5,00
60	79,50	80,00	13,00	5,00
63	82,50	83,00	13,00	5,00
65	84,50	85,00	13,00	5,00
68	89,50	90,00	15,30	5,00
70	91,40	92,00	15,30	5,00
75	96,40	97,00	15,30	5,00
80	104,20	105,00	15,70	5,00
85	109,20	110,00	15,70	5,00
90	114,20	115,00	15,70	5,00
95	119,20	120,00	15,70	5,00
100	124,20	125,00	15,70	5,00



• Gegenring = CrNiMo-Stahl, Kohle, Al-Oxid, SiC, WC



• Stationary = SS, Carbon, Al-Oxide, SiC, TC



Abmessung	d1	d3	l3	d7	l4	d6	l1
Inch	mm	mm	mm	mm	mm	mm	mm
0,500	12,70	23,90	20,62	25,40	7,93	19,05	28,55
0,625	15,80	26,70	22,22	31,75	10,28	23,80	32,50
0,750	19,10	31,10	22,22	34,93	10,28	26,98	32,50
0,875	22,20	33,40	23,80	38,10	10,28	30,15	34,08
1,000	25,40	43,20	25,40	41,28	11,10	33,32	36,50
1,125	28,60	46,30	26,97	44,44	11,10	36,50	38,07
1,250	31,70	49,40	26,97	47,63	11,10	39,70	38,07
1,375	34,90	52,60	28,58	50,80	11,10	42,84	39,68
1,500	38,10	55,80	28,58	53,98	11,10	46,05	39,68
1,625	41,20	62,20	34,93	60,33	12,70	50,80	47,63
1,750	44,40	66,00	34,93	63,50	12,70	53,97	47,63
1,875	47,60	66,60	38,10	66,68	12,70	57,15	50,80
2,000	50,80	73,00	38,10	69,85	12,70	60,32	50,80
2,125	53,90	73,30	42,88	76,20	14,28	60,32	57,16
2,250	57,10	78,40	42,88	79,38	14,28	61,90	57,16
2,375	60,30	82,00	46,02	82,55	14,28	67,39	60,30
2,500	63,50	84,90	46,02	85,73	14,28	68,00	60,30
2,625	66,60	88,40	49,20	85,73	15,90	71,42	65,10
2,750	69,80	92,60	49,20	88,90	15,90	74,60	65,10
2,875	73,00	94,85	52,37	95,25	15,90	77,77	68,27
3,000	76,20	101,90	52,37	98,43	15,90	80,95	68,27



Eigenschaften:

- Einzel-Gleitringdichtung
- Faltenbalgdichtung
- Drehrichtungsunabhängig
- Nichtentlastet

Einsatzgrenzen:

Druck $p = 12 \text{ bar}$
 Geschwindigkeit $v = 10 \text{ m/sec.}$
 Temperatur $t = -20+120^\circ\text{C}$



Characteristics:

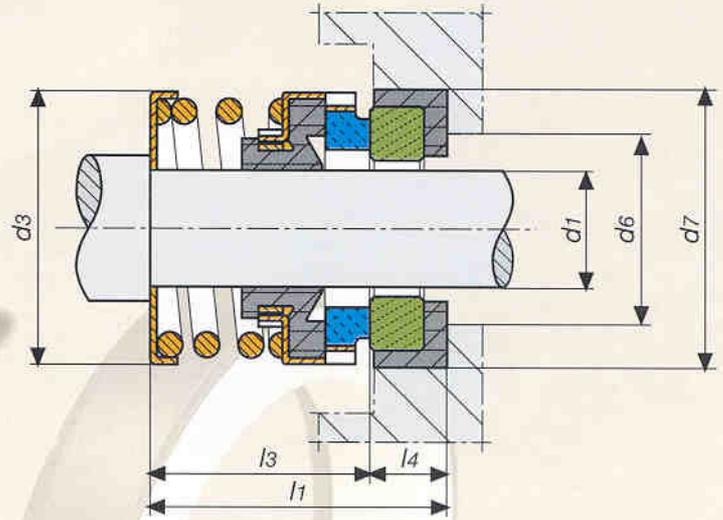
- Single Spring Seal
- Bellow Seal
- Double Directional
- Unbalanced

Limit of applications:

Pressure $p = 12 \text{ bar}$
 Speed $v = 10 \text{ m/sec.}$
 Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC
- Gegening = Al-Oxid, SiC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4401
- Sonstige Teile = 1.4401

- Rotary = Carbon, SiC
- Stationary = Al-Oxide, SiC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 316
- Other Parts = AISI 316



Abmessung	d1	d3	l3	d7	l4	d6	l1
Inch	mm	mm	mm	mm	mm	mm	mm
0,500	12,70	23,90	31,75	25,40	7,93	19,05	39,68
0,625	15,80	26,70	34,93	31,75	10,28	23,80	45,21
0,750	19,10	31,10	34,93	34,93	10,28	26,98	45,21
0,875	22,20	33,40	36,50	38,10	10,28	30,15	46,78
1,000	25,40	43,20	41,28	41,28	11,10	33,32	52,38
1,125	28,60	46,30	42,85	44,44	11,10	36,50	53,95
1,250	31,70	49,40	42,85	47,63	11,10	39,70	53,95
1,375	34,90	52,60	42,85	50,80	11,10	42,84	53,95
1,500	38,10	55,80	42,85	53,98	11,10	46,05	53,95
1,625	41,20	62,20	50,80	60,33	12,70	50,80	63,50
1,750	44,40	66,00	50,80	63,50	12,70	53,97	63,50
1,875	47,60	66,60	53,98	66,68	12,70	57,15	66,68
2,000	50,80	73,00	53,98	69,85	12,70	60,32	66,68
2,125	53,90	73,30	60,32	76,20	14,28	60,32	74,60
2,250	57,10	78,40	60,32	79,38	14,28	61,90	74,60
2,375	60,30	82,00	63,50	82,55	14,28	67,39	77,78
2,500	63,50	84,90	63,50	85,73	14,28	68,00	77,78
2,625	66,60	88,40	69,85	85,73	15,90	71,42	85,75
2,750	69,80	92,60	69,85	88,90	15,90	74,60	85,75
2,875	73,00	94,85	73,03	95,25	15,90	77,77	88,93
3,000	76,20	101,90	73,03	98,43	15,90	80,95	88,93


Eigenschaften:

Einzel-Gleitringdichtung
 Faltenbalgdichtung
 Drehrichtungsunabhängig
 Nichtentlastet

Einsatzgrenzen:

Druck $p = 12 \text{ bar}$
 Geschwindigkeit $v = 10 \text{ m/sec.}$
 Temperatur $t = -20+120^\circ\text{C}$


Characteristics:

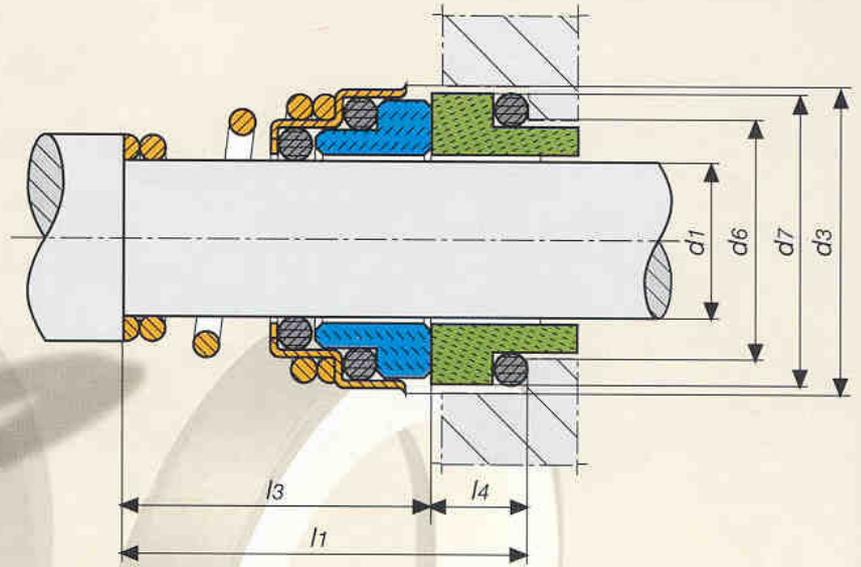
Single Spring Seal
 Bellow Seal
 Double Directional
 Unbalanced

Limit of applications:

Pressure $p = 12 \text{ bar}$
 Speed $v = 10 \text{ m/sec.}$
 Temperature $t = -20+120^\circ\text{C}$

- Gleitring = Kohle, SiC
- Gegenring = Al-Oxid, SiC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4401
- Sonstige Teile = 1.4401

- Rotary = Carbon, SiC
- Stationary = Al-Oxide, SiC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 316
- Other Parts = AISI 316



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
10	19,50	15,00	18,10	5,50	14,00	20,50
11	22,50	18,00	20,60	5,50	16,50	23,50
12	22,50	18,00	20,60	5,50	16,50	23,50
13	24,50	22,00	23,10	6,00	19,00	28,00
14	24,50	22,00	23,10	6,00	19,00	28,00
15	29,00	22,00	26,90	7,00	21,00	29,00
16	29,00	23,00	26,90	7,00	21,00	30,00
17	29,00	23,00	26,90	7,00	21,00	30,00
18	32,50	24,00	30,90	8,00	25,00	32,00
19	32,50	25,00	30,90	8,00	25,00	33,00
20	32,50	25,00	30,90	8,00	25,00	33,00
22	37,50	25,00	35,40	8,00	30,00	33,00
24	37,50	27,00	35,40	8,00	30,00	35,00
25	40,00	27,00	38,20	8,50	33,00	35,50
28	46,00	29,00	43,30	9,00	38,00	38,00
30	46,00	30,00	43,30	9,00	38,00	39,00
32	46,00	30,00	43,30	9,00	38,00	39,00
33	48,00	30,00	53,50	11,50	45,00	41,50
35	50,00	39,00	53,50	11,50	45,00	50,50
38	56,00	39,00	60,50	11,50	52,00	50,50
40	58,00	39,00	60,50	11,50	52,00	50,50



Eigenschaften:

Einzel-Gleitringdichtung
 Konische Feder
 Drehrichtungsabhängig
 Nichtentlastet

Einsatzgrenzen:

Druck $p = 10 \text{ bar}$
 Geschwindigkeit $v = 20 \text{ m/sec.}$
 Temperatur $t = -20+180^\circ\text{C}$



Characteristics:

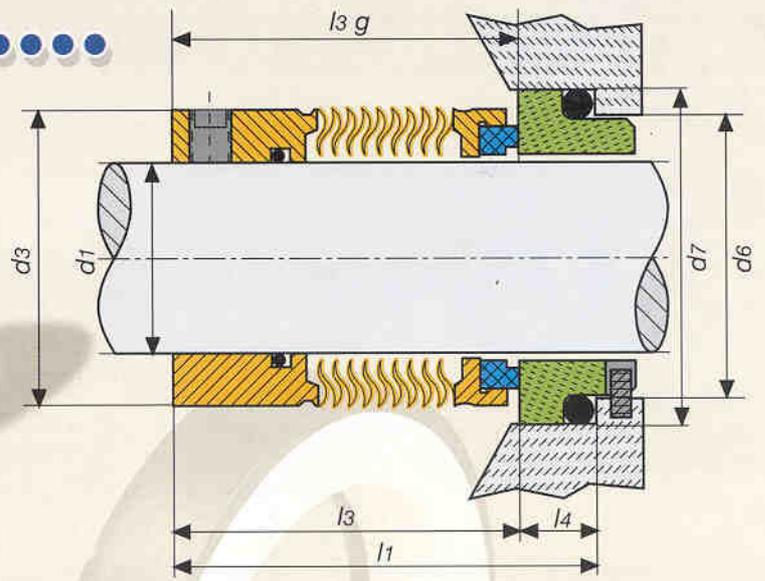
Single Spring Seal
 Conical Spring
 Single Directional
 Unbalanced

Limit of applications:

Pressure $p = 10 \text{ bar}$
 Speed $v = 20 \text{ m/sec.}$
 Temperature $t = -20+180^\circ\text{C}$

- Gleitring = Al-Oxid, SiC, WC
- Gegenring = Kohle, SiC, WC
- Nebendichtung = NBR, EPDM, VITON®
- Feder = 1.4301
- Sonstige Teile = 1.4301

- Rotary = Al-Oxide, SiC, TC
- Stationary = Carbon, SiC, TC
- Secondary Seal = NBR, EPDM, VITON®
- Spring = AISI 304
- Other Parts = AISI 304



d1	d3	l3	l3g	d7	l4	d6	l1	l3g
mm	mm	mm	mm	mm	mm	mm	mm	mm
18	37,00	27,50	-	33,00	10,00	27,00	37,50	-
20	37,00	27,50	-	35,00	10,00	29,00	37,50	-
22	37,00	27,50	-	37,00	10,00	31,00	37,50	-
24	37,00	30,00	-	39,00	10,00	33,00	40,00	-
25	37,00	30,00	42,85	40,00	10,00	34,00	40,00	52,85
28	43,00	32,50	39,70	43,00	10,00	37,00	42,50	49,70
30	43,00	32,50	39,70	45,00	10,00	39,00	42,50	49,70
32	43,00	32,50	39,70	48,00	10,00	42,00	42,50	49,70
33	49,20	32,50	39,70	48,00	10,00	42,00	42,50	49,70
35	49,20	32,50	44,50	50,00	10,00	44,00	42,50	54,50
38	49,20	34,00	44,50	56,00	11,00	49,00	45,00	55,50
40	55,50	34,00	44,50	58,00	11,00	51,00	45,00	55,50
43	58,70	34,00	44,50	61,00	11,00	54,00	45,00	55,50
45	58,70	34,00	44,50	63,00	11,00	56,00	45,00	55,50
48	61,90	34,00	44,50	66,00	11,00	59,00	45,00	55,50
50	65,10	34,50	44,50	70,00	13,00	62,00	47,50	57,50
53	68,20	34,50	44,50	73,00	13,00	65,00	47,50	57,50
55	71,40	34,50	47,60	75,00	13,00	67,00	47,50	60,60
58	74,60	39,50	47,60	78,00	13,00	70,00	52,50	60,60
60	74,60	39,50	47,60	80,00	13,00	72,00	52,50	60,60
63	80,90	39,50	47,60	83,00	13,00	75,00	52,50	60,60
65	84,10	39,50	47,60	85,00	13,00	77,00	52,50	60,60
68	87,30	37,20	47,60	90,00	15,30	81,00	52,50	62,90
70	87,30	44,70	47,60	92,00	15,30	83,00	60,00	62,90
75	95,20	44,70	47,60	97,00	15,30	88,00	60,00	62,90
80	98,40	44,30	47,60	105,00	15,70	95,00	60,00	63,30
85	104,80	44,30	47,60	110,00	15,70	100,00	60,00	63,30
90	108,00	49,30	47,60	115,00	15,70	105,00	65,00	63,30
95	114,30	49,30	47,60	120,00	15,70	110,00	65,00	63,30
100	120,70	49,30	47,60	125,00	15,70	115,00	65,00	63,30



Eigenschaften:

Einzel-Gleitringdichtung
 Metallfaltenbalgdichtung
 Drehrichtungsunabhängig
 Nichtentlastet
 Nach DIN 24960

Einsatzgrenzen:

Druck $p = 20$ bar
 Geschwindigkeit $v = 20$ m/sec.
 Temperatur $t = -20+400^{\circ}\text{C}$
 Nach O-Ringe/Graphit



Characteristics:

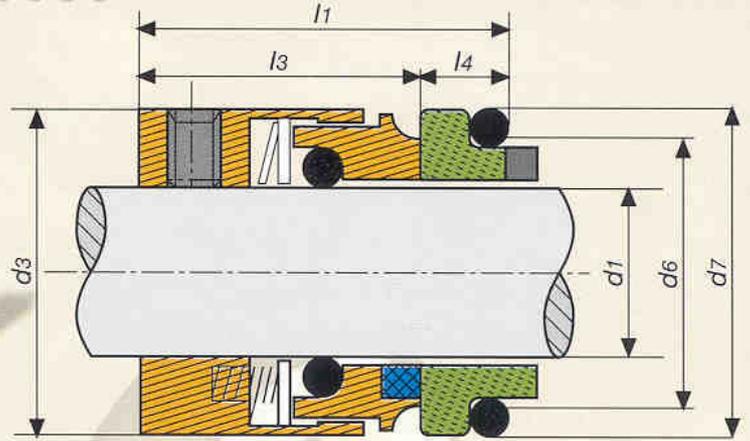
Single Spring Seal
 Metal Bellows Seal
 Double Directional
 Unbalanced
 According to DIN 24960

Limit of applications:

Pressure $p = 20$ bar
 Speed $v = 20$ m/sec.
 Temperature $t = -20+400^{\circ}\text{C}$
 According to the O-Rings/Graphite

- **Gleitring** = Kohle, SiC, WC
- **Gegenring** = SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®, GRAPHIT
- **Balg** = AM 350, Hastelloy® C
- **Sonstige Teile** = 1.4401

- **Rotary** = Carbon, SiC, TC
- **Stationary** = SiC, TC
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®, GRAPHITE
- **Bellow** = AM 350, Hastelloy® C
- **Other Parts** = AISI 316



d1	d3	l3	d7	l4	d6	l1
mm	mm	mm	mm	mm	mm	mm
12	25,00	25,00	23,00	10,00	23,00	35,00
14	25,00	25,00	25,00	10,00	25,00	35,00
16	27,00	25,00	27,00	10,00	27,00	35,00
18	33,00	26,00	27,00	11,50	27,00	37,50
20	35,00	26,00	33,00	11,50	33,00	37,50
22	37,00	26,00	35,00	11,50	35,00	37,50
24	39,00	28,50	35,00	11,50	37,00	40,00
25	40,00	28,50	37,00	11,50	39,00	40,00
28	43,00	31,00	39,00	11,50	40,00	42,50
30	45,00	31,00	40,00	11,50	43,00	42,50
32	47,00	31,00	43,00	11,50	45,00	42,50
33	48,00	31,00	45,00	11,50	48,00	42,50
35	50,00	31,00	48,00	11,50	48,00	42,50
38	55,00	31,00	48,00	14,00	50,00	45,00
40	57,00	31,00	50,00	14,00	56,00	45,00
43	60,00	31,00	56,00	14,00	58,00	45,00
45	62,00	31,00	58,00	14,00	61,00	45,00
48	65,00	31,00	61,00	14,00	63,00	45,00
50	67,00	32,50	63,00	15,00	66,00	47,50
53	70,00	32,50	66,00	15,00	70,00	47,50
55	72,00	32,50	70,00	15,00	73,00	47,50
58	79,00	37,50	73,00	15,00	75,00	52,50
60	81,00	37,50	75,00	15,00	78,00	52,50
63	84,00	37,50	78,00	15,00	80,00	52,50
65	86,00	37,50	80,00	15,00	85,00	52,50
68	89,00	34,50	83,00	18,00	90,00	52,50
70	91,00	42,00	85,00	18,00	92,00	60,00
75	99,00	42,00	90,00	18,00	97,00	60,00
80	104,00	41,80	92,00	18,20	105,00	60,00
85	109,00	41,80	97,00	18,20	110,00	60,00
90	114,00	46,80	105,00	18,20	115,00	65,00
95	119,00	47,80	110,00	17,20	120,00	65,00
100	124,00	47,80	115,00	17,20	125,00	65,00



Eigenschaften:

Einzel-Gleitringdichtung
 Sinusfederdichtung (Gruppenbefed. Möglich)
 Drehrichtungsunabhängig
 Nichtentlastet

Einsatzgrenzen:

Druck $p = 16 \text{ bar}$
 Geschwindigkeit $v = 20 \text{ m/sec.}$
 Temperatur $t = -30+220^\circ\text{C}$



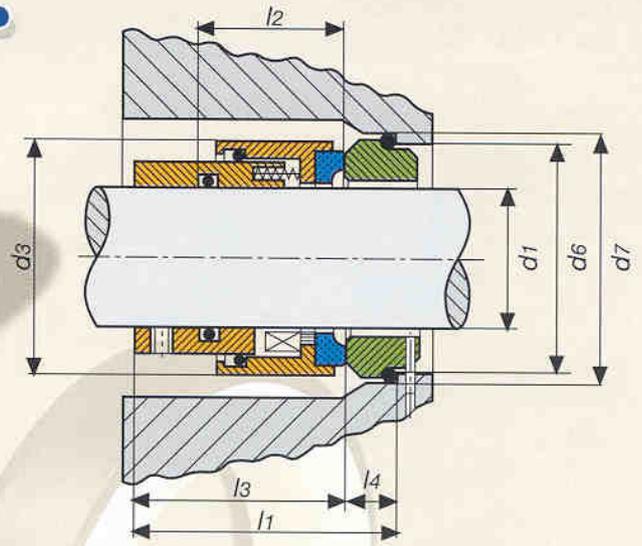
Characteristics:

Single Spring Seal
 Wave Spring Seal (multiple Spring possible)
 Double Directional
 Unbalanced

Limit of applications:

Pressure $p = 16 \text{ bar}$
 Speed $v = 20 \text{ m/sec.}$
 Temperature $t = -30+220^\circ\text{C}$

- **Gleitring** = CrNiMo-Stahl, Kohle, SiC, WC
- **Gegenring** = Kohle, Al-Oxid, SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Feder** = 1.4401
- **Sonstige Teile** = 1.4401
- **Rotary** = SS, Carbon, SiC, TC
- **Stationary** = Carbon, Al-Oxide, SiC, TC
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Spring** = AISI 316
- **Other Parts** = AISI 316



d1	d3	d3-2	l2	l3	l3-2	d7	l4	d6	l1	l1-2
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
18	32,00	34,00	18,00	30,00	30,00	33,00	10,00	27,00	40,00	40,00
20	34,00	36,00	18,00	30,00	30,00	35,00	10,00	29,00	40,00	40,00
22	36,00	38,00	18,00	30,00	30,00	37,00	10,00	31,00	40,00	40,00
24	38,00	40,00	18,00	30,00	30,00	39,00	10,00	33,00	40,00	40,00
25	39,00	41,00	18,00	30,00	30,00	40,00	10,00	34,00	40,00	40,00
28	42,00	44,00	18,00	30,00	32,50	43,00	10,00	37,00	40,00	42,50
30	44,00	46,00	18,00	30,00	32,50	45,00	10,00	39,00	40,00	42,50
32	46,00	48,00	18,00	30,00	32,50	48,00	10,00	42,00	40,00	42,50
33	47,00	49,00	18,00	30,00	32,50	48,00	10,00	42,00	40,00	42,50
35	49,00	50,90	18,00	30,00	32,50	50,00	10,00	44,00	40,00	42,50
38	54,00	54,80	18,00	30,00	34,00	56,00	11,00	49,00	41,00	45,00
40	56,00	58,00	18,00	30,00	34,00	58,00	11,00	51,00	41,00	45,00
42	58,00	58,00	18,00	30,00	34,00	61,00	11,00	54,00	41,00	45,00
43	59,00	61,00	18,00	30,00	34,00	61,00	11,00	54,00	41,00	45,00
45	61,00	61,00	18,00	30,00	34,00	63,00	11,00	56,00	41,00	45,00
48	64,00	64,40	18,00	30,00	34,00	66,00	11,00	59,00	41,00	45,00
50	66,00	67,60	18,00	30,00	34,50	70,00	13,00	62,00	43,00	47,50
53	69,00	70,80	18,00	30,00	34,50	73,00	13,00	65,00	43,00	47,50
55	71,00	73,00	18,00	30,00	34,50	75,00	13,00	67,00	43,00	47,50
58	75,00	77,20	18,00	30,00	34,50	78,00	13,00	70,00	43,00	47,50
60	77,00	77,20	18,00	30,00	34,50	80,00	13,00	72,00	43,00	47,50
63	80,00	78,30	18,00	30,00	34,50	83,00	13,00	75,00	43,00	47,50
65	83,00	88,20	18,00	30,00	36,00	85,00	13,00	77,00	43,00	49,00
68	85,00	88,20	18,00	30,00	36,00	90,00	15,30	81,00	45,30	51,30
70	88,00	91,40	18,00	30,00	36,00	92,00	15,30	83,00	45,30	51,30
75	94,00	97,70	18,00	30,00	36,00	97,00	15,30	88,00	45,30	51,30
80	100,00	100,90	18,00	30,00	36,00	105,00	15,70	95,00	45,70	51,70
85	104,00	107,30	18,00	30,00	36,00	110,00	15,70	100,00	45,70	51,70
90	110,00	110,40	18,00	30,00	36,00	115,00	15,70	105,00	45,70	51,70
95	113,00	113,40	18,00	30,00	36,00	120,00	15,70	110,00	45,70	51,70
100	120,00	120,00	18,00	30,00	36,00	125,00	15,70	115,00	45,70	51,70

weitere Abmessungen auf Anfrage. Die Maße l3, l3-2, l1 und l1-2 können gem. Kundenwunsch geändert werden
 Other sizes on request. The Sizes l3, l3-2, l1 and l1-2 could be modified according to the customer request



Eigenschaften:

- Einzel-Gleitringdichtung
- Gruppenbefedertedichtung
- Drehrichtungsunabhängig
- Entlastet

Einsatzgrenzen:

Druck p = 25 bar
 Geschwindigkeit v = 20 m/sec.
 Temperatur t = -30+220°C



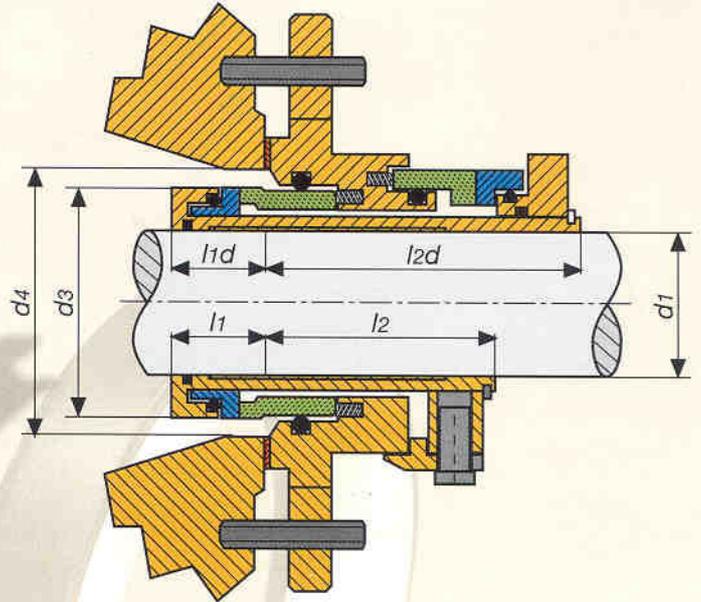
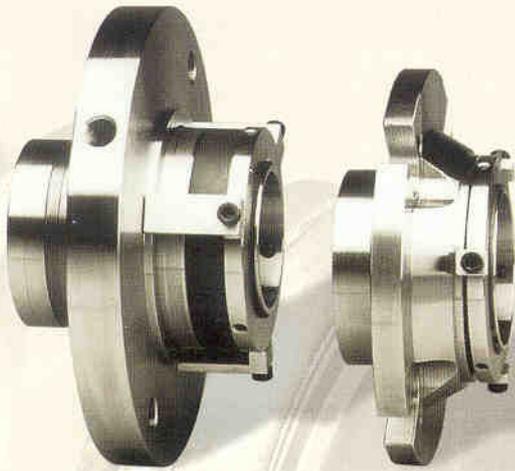
Characteristics:

- Single Spring Seal
- Multiple Spring Seal
- Double Directional
- Balanced

Limit of applications:

Pressure p = 25 bar
 Speed v = 20 m/sec.
 Temperature t = -30+220°C

- **Gleitring** = Kohle, SiC, WC
- **Gegenring** = Al-Oxid, Kohle, CrNiMo-Stahl, SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Feder** = 1.4401 oder Hastelloy® C
- **Sonstige Teile** = 1.4401
- **Rotary** = Carbon, SiC, TC
- **Stationary** = Al-Oxide, Carbon, SS, SiC, TC
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Spring** = AISI 316 or Hastelloy® C
- **Other Parts** = AISI 316



Serie BB10-1, BB10-S

d1	d3	d4	l1	l2	l2-s
mm	mm	mm	mm	mm	mm
25	43,00	44,00	22,00	43,00	46,00
30	48,00	49,00	22,00	43,00	46,00
32	50,00	51,00	22,00	43,00	46,00
33	50,00	51,00	22,00	43,00	46,00
35	53,00	54,00	22,00	43,00	46,00
38	56,00	57,00	22,00	43,00	46,00
40	58,00	59,00	22,00	43,00	46,00
42	61,00	62,00	22,00	43,00	46,00
43	61,00	62,00	22,00	43,00	46,00
45	63,00	64,00	22,00	43,00	46,00
48	66,00	67,00	22,00	43,00	46,00
50	68,00	69,00	22,00	43,00	46,00
55	73,00	74,00	22,00	43,00	46,00
60	78,00	79,00	22,00	43,00	46,00
65	83,00	84,00	22,00	43,00	46,00
70	93,00	95,00	22,00	43,00	46,00
75	98,00	99,00	22,00	43,00	46,00
80	103,00	104,00	22,00	43,00	46,00
85	108,00	109,00	22,00	43,00	46,00
90	113,00	114,00	22,00	43,00	46,00
95	118,00	119,00	22,00	43,00	46,00
100	123,00	124,00	22,00	43,00	46,00

Serie BB10-D

d1	d3	d4	l1d	l2d
mm	mm	mm	mm	mm
25	43,00	44,00	25,00	45,00
30	48,00	49,00	25,00	45,00
32	50,00	51,00	25,00	45,00
33	50,00	51,00	25,00	45,00
35	53,00	54,00	25,00	45,00
38	56,00	57,00	25,00	45,00
40	58,00	59,00	25,00	45,00
42	61,00	62,00	25,00	45,00
43	61,00	62,00	25,00	45,00
45	63,00	64,00	25,00	45,00
48	66,00	67,00	25,00	45,00
50	68,00	69,00	25,00	45,00
55	73,00	74,00	25,00	45,00
60	78,00	79,00	25,00	45,00
65	83,00	84,00	25,00	45,00
70	93,00	95,00	25,00	45,00
75	98,00	99,00	25,00	45,00
80	103,00	104,00	25,00	45,00
85	108,00	109,00	25,00	45,00
90	113,00	114,00	25,00	45,00
95	118,00	119,00	25,00	45,00
100	123,00	124,00	25,00	45,00



Eigenschaften:

BB10-1 Einfache-Patronendichtung
 BB10-S Einfache-Patronendichtung
 mit Quench & Drain
 BB10-D Doppelte-Patronendichtung
 Entlastet

Einsatzgrenzen:

Druck $p = 25 \text{ bar}$
 Geschwindigkeit $v = 10-16 \text{ m/sec.}$
 Temperatur $t = -40+200^\circ\text{C}$



Characteristics:

BB10-1 Single Cartridge Seal
 BB10-S Single Cartridge Seal
 with Quench & Drain
 BB10-D Double Cartridge Seal
 Balanced

Limit of applications:

Pressure $p = 25 \text{ bar}$
 Speed $v = 10-16 \text{ m/sec.}$
 Temperature $t = -40+200^\circ\text{C}$

- **Gleitring** = Kohle, SiC, WC
- **Gegenring** = Kohle, CrNiMo-Stahl, SiC, WC
- **Nebendichtung** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Feder** = Hastelloy® C
- **Sonstige Teile** = 1.4571
- **Rotary** = Carbon, SiC, TC
- **Stationary** = Carbon, SS, SiC, WC
- **Secondary Seal** = NBR, EPDM, VITON®, FEP, KALREZ®
- **Spring** = Hastelloy® C
- **Other Parts** = AISI 316L



ROTOR
STATIONÄR T
C 1. Ziffer

ROTARY
STATIONARY T
C 1st Number

BB1	1	
BB2	2	
BB3	3	
BB4	4	
BB5	5	
BB6	6	
BB7	7	
BB8	8	
BB10	10	2. Ziffer

BB1	1	
BB2	2	
BB3	3	
BB4	4	
BB5	5	
BB6	6	
BB7	7	
BB8	8	
BB10	10	2 nd Number

Kohle 1
Al-Oxid (Keramik) 2
CrNiMo-Stahl 3
Siliziumkarbid 4
Wolframkarbid 5 3. Ziffer

Carbon 1
Al-Oxide (Ceramic) 2
CrNiMo-Steel 3
Silicone Carbide 4
Tungsten Carbide 5 3rd Number

NBR N
EPDM E
VITON V
FEP F
OTHER S 4. Ziffer

NBR N
EPDM E
VITON V
FEP F
SONDER S 4th Number

ABMESSUNG mm 5. & 6. Ziffer

SIZE mm 5th & 6th Numbers

TYP DER GEGENRINGE

Die Gegenringe werden durch einen Zusatz unterschieden. Der entsprechende Zusatz ist lediglich der Schlüsselnummer hinzuzufügen.

C4 Kein Zusatz
C6 -OD
C9 -ODL
C9S -ODLS
C60 -D

STATIONARY STYLE

Stationaries could be identified according to the following suffix you have to add to the Stationary No.

C4 no Suffix
C6 -OD
C9 -ODL
C9S -ODLS
C60 -D

zum Beispiel:

BB3, 25 mm. Kohle/SiC/EPDM

T31E25 Gleitring aus Kohle mit EPDM Balg

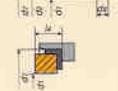
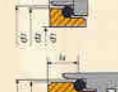
C34E25 Gegenring C4 aus SiC mit EPDM Elastomer

C34E25-OD Gegenring C6 aus SiC mit EPDM Elastomer

C34E25-ODL Gegenring C9 aus SiC mit EPDM Elastomer

C34E25-ODLS Gegenring C9S aus SiC mit EPDM Elastomer

C34E25-D Gegenring C60 aus SiC mit EPDM Elastomer



For Example:

BB3, 25 mm. Carbon/SiC/EPDM

T31E25 Rotary from Carbon with EPDM Bellows

C34E25 Stationary C4 from SiC with EPDM Elastomer

C34E25-OD Stationary C6 from SiC with EPDM Elastomer

C34E25-ODL Stationary C9 from SiC with EPDM Elastomer

C34E25-ODLS Stationary C9S from SiC with EPDM Elastomer

C34E25-D Stationary C60 from SiC with EPDM Elastomer

