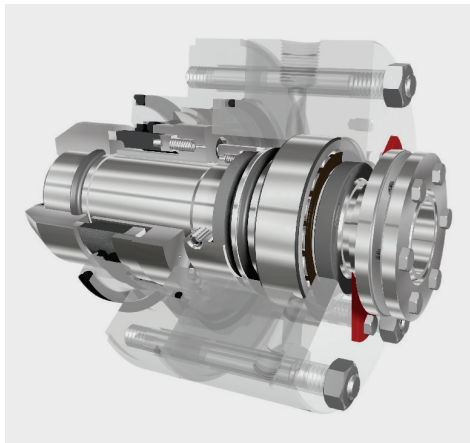


VS-E Dual Seals Agitator Seals - Liquid Lubricated



Product Description

1. Dual seal configuration
2. Unbalanced design
3. Independent of direction of rotation
4. Cartridge construction
5. Designed for top, side and bottom entry vessels
6. Design of the product side seat is rotary

Technical Features

1. Design with CIP-/SIP (Cleaning in Place, Sterilization in Place)
2. Smooth construction of surfaces with no empty crevices
3. Sterile application design available
4. Rugged design to ensure long term reliability and operating life
5. Seals are assembled in cartridge construction for easy fitment
6. Over all connecting dimensions are tailor made to customer's specifications

Typical Industrial Applications

Chemical industry	Kneaders
Food and beverage industry	Mills
Pharmaceutical industry	Mixers
Dryers	Pressure filters
	Reactors

Materials

Product side : Seal face, seat: Silicon carbide (Q1), Tungsten carbide (U)

Metal parts: Cr steel (E), CrNiMo steel (G), Hastelloy® (M)

Atmosphere side: Seal face, seat: Silicon carbide (Q1), Carbon graphite resin impregnated (B)

Metal parts: Cr steel (E), CrNiMo steel (G)

Product and atmosphere side:

Springs: CrNiMo steel (G), Hastelloy® (M)

Secondary seals: EPDM (E), FKM (V),

FFKM (K), FKM, FEP wrapped (M5)

Other materials on request.

Performance Capabilities

Sizes: $d_N / d_w =$ Upto 200 (500) mm (Upto 7.875" (20.00"))

Axial offset shaft/housing:

d_N / d_w 30... 60mm (1.18"...2.36"): max. ± 1.5 mm (0.059")

$d_N / d_w > 60$ mm (2.36"): max. ± 2.0 mm (0.079")

Radial offset shaft/housing: max. ± 0.3 mm (0.012")

Pressure: p_1 (media) = vacuum... 14 (23) bar (203 (334 PSI))

p_3 (buffer fluid) = max. 16 (25) bar (232 (363 PSI))

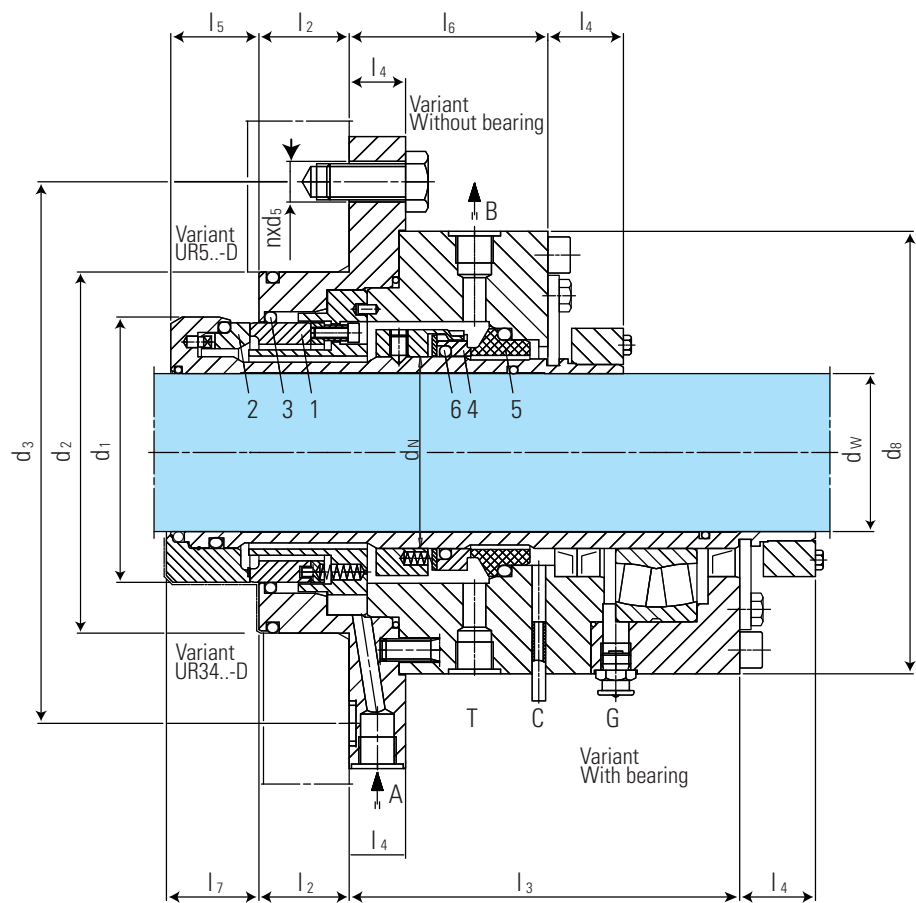
$\Delta p_3 > p_1 =$ min. 2 bar (29 PSI), max. 10 bar (145 PSI)

Temperature:

t_1 (media) = - 20 °C ... + 200 (300) °C

(- 4 °F ... + 392 (572) °F)

Speed = 20 m/s (66 ft/s)



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

Item	Description
1	Seal face, product side
2	Seat, product side
3	O-ring, dynamic
4	Seal face, atmosphere side
5	Seat, atmosphere side
6	O-ring, dynamic



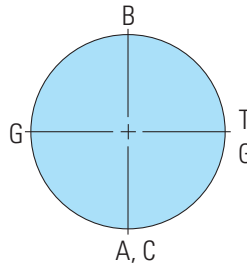
Notes

Options:
 Cooling or heating flange
 Temperature probe
 Axial expansion joint (shaft lifting)
 Wiper ring (shaft lifting)

Standards

FDA

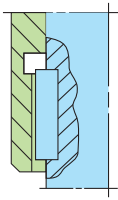
Installation, Details, Options



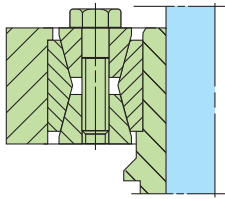
Supply Connections

A	Barrier fluid IN
B	Barrier fluid OUT
C	Drainage
G	Grease
T	Temperature measuring

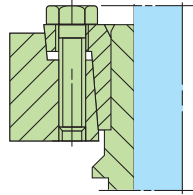
Torque Transmissions



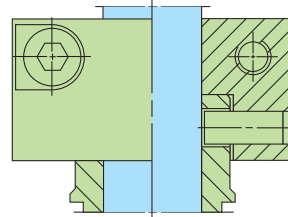
Drive key



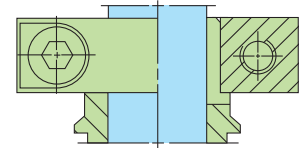
Clamping set



Shrink disc



Clamping ring with pin



Clamping ring

Dimensional Data

Dimensions in millimeter

d _N	d _W	d ₁	d ₂	d ₃	d ₈	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	A,B	nxd ₅
30	20	52	117	140	118	35	30	114	30	22	75	41	G3/8	6X11
35	25	58	124	150	128	35	30	127	30	22	85	41	G3/8	6X11
40	30	62	134	165	138	35	30	129	30	24	87	41	G3/8	6X11
45	35	68	140	175	148	35	30	130	30	24	87	41	G3/8	6X11
50	40	75	145	175	148	35	30	133	34	26	90	41	G3/8	8X11
55	45	82.7	150	175	148	35	30	135	34	26	90	41	G3/8	8X11
60	50	85	160	185	158	41	30	150	34	30	105	41	G3/8	8X11
65	50	90	170	195	168	41	30	160	34	30	105	41	G3/8	8X11
70	55	95	175	205	178	41	30	160	34	30	105	41	G3/8	8X11
75	60	100	180	205	178	41	30	160	34	30	105	41	G3/8	8X11
80	65	110	190	220	188	41	40	190	44	30	105	41	G3/8	8X14
85	70	115	195	230	198	41	40	190	44	30	105	41	G3/8	8X14
90	75	120	200	230	198	41	40	190	44	30	105	41	G3/8	8X14
95	80	127	205	235	203	41	40	190	44	30	105	41	G3/8	8X14
100	80	130	210	240	208	41	40	190	44	30	105	45	G3/8	8X14
105	85	135	215	250	218	41	40	190	44	30	105	45	G1/2	8X14
110	90	140	230	260	228	41	40	190	44	31	110	45	G1/2	8X14
115	95	145	235	270	238	41	40	190	44	31	110	45	G1/2	8X14
120	100	150	240	270	238	42	40	200	44	31	120	46	G1/2	8X14
130	110	160	255	290	258	42	40	200	50	31	120	46	G1/2	8X14
140	120	172	265	305	268	43	50	220	50	41	130	46	G1/2	8X18
150	130	185	275	315	278	43	50	220	50	41	130	46	G1/2	8X18
160	140	195	290	335	298	43	50	220	50	41	130	46	G1/2	8X18
170	150	205	300	335	298	47	50	220	50	45	130	46	G1/2	8X18
180	160	220	330	355	323	47	50	250	50	45	140	46	G1/2	8X18
190	170	230	345	375	358	47	50	250	55	45	140	46	G1/2	8X18
200	180	240	365	395	358	47	50	250	55	45	140	51	G1/2	8X18
210	190	260	385	415	378	50	50	250	55	45	140	51	G1/2	12X18
220	190	270	395	425	388	50	50	250	55	45	140	51	G1/2	12X18
230	200	280	395	425	388	50	50	300	55	45	160	51	G1/2	12X18

d_N > 230 on request
 inch size available from size 1.125 to 9.000

Note: Additional technical & dimensional information will be provided on request.