

RELY ON EXCELLENCE

API^{Itex}-T

API 682 4th edition | Mechanical seals | Balanced pusher seals



Features

- API 682 Category 1, Type A, Arrangement 2 or 3 seal
- Dual seal in face-to-back arrangement
- Balanced
- Cartridge unit
- Independent of direction of rotation
- Shrink-fitted seal faces
- Solid mating rings

Advantages

- Suitable for pressure reversal
- Insensitive to shaft deflections and process fluctuations
- Cover distortion cannot cause mating ring misalignment
- Good heat dissipation
- No external pump necessary
- Pre-assembled unit, ready to install
- Low space requirements
- Security due to proofed design
- Springs protected from the product

Operating range

Shaft diameter:
 $d_1 = 20 \dots 110 \text{ mm} (0.79" \dots 4.33")$
 Pressure: $p_1 = 22 \text{ bar} (319 \text{ PSI})$
 Temperature: $t = -40 \text{ }^\circ\text{C} \dots +176 \text{ }^\circ\text{C}$
 ($-40 \text{ }^\circ\text{F} \dots +349 \text{ }^\circ\text{F}$)
 ($>176 \text{ }^\circ\text{C} (349 \text{ }^\circ\text{F})$ please inquire)
 Sliding velocity: $v_g = 23 \text{ m/s} (75 \text{ ft/s})$

Materials

Seal ring: Blister resistant carbon, Silicon carbide SSiC (Q12)
 Mating ring: Silicon carbide SSiC (Q1)
 Secondary seals:
 EPDM (E), NBR (P), FKM (V), FFKM (K)
 Springs: Hastelloy® C-4 (M)* and C-276 (M5)
 Metal parts: CrNiMo steel 316 (G) or equivalent, optional materials on request.

* EagleBurgmann standard

Standards and approvals

- API 682 / ISO 21049
- API 682 4th ed. Cat. 1 - 2CW-CW
- API 682 4th ed. Cat. 1 - 3CW-FB

Recommended applications

- Highly volatile hydrocarbons
- Toxic and hazardous media
- Media with poor lubrication properties
- Low solids content and low abrasive media
- Process industry
- Oil and gas industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Vertical and horizontal ANSI chemical standard pumps

Recommended piping plans

Process side:

- [API Plan 01](#)
- [API Plan 02](#)
- [API Plan 03](#)
- [API Plan 11](#)
- [API Plan 12](#)
- [API Plan 13](#)
- [API Plan 14](#)
- [API Plan 21](#)
- [API Plan 22](#)
- [API Plan 23](#)
- [API Plan 31](#)

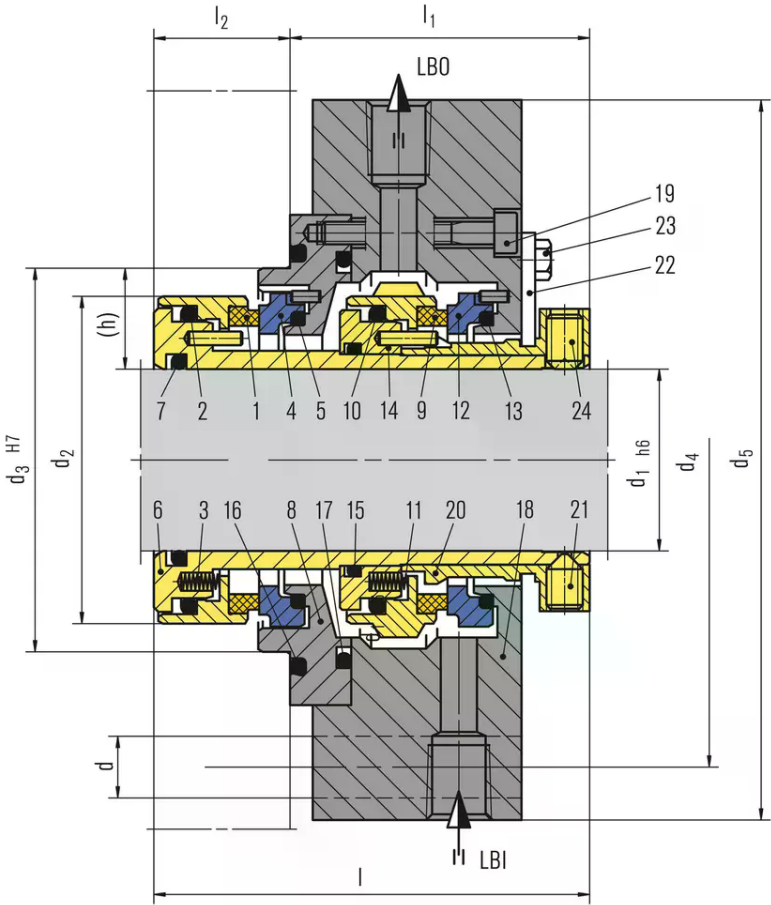
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API Plan 32
API Plan 41

Between seals:
API Plan 52
API Plan 53A
API Plan 53B
API Plan 53C
API Plan 54
API Plan 55

Atmospheric side*:
API Plan 61
API Plan 62
API Plan 65A
API Plan 65B

* Depending on application, please inquire.



Item	Description
1, 9	Seal ring
2, 5, 7, 10, 13, 15, 16, 17	O-Ring
3, 11	Spring
4, 12	Mating ring
6	Seal sleeve
8, 18	Gland plate
14	Driver
19	HSH Cap screw
20	Set ring
21, 24	Set screw
22	Setting device
23	Hexagon bolt

LBO Liquid buffer/barrier OUT
LBI Liquid buffer/barrier IN

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Dimensions

d ₁	d~2 ~	d~3 ~	d ₄	d ₅	l	l ₁	l ₂	d	Qty.	Acc. ASME B73.1 (h min.)
20	50.4	58	105	127	96.5	68.5	28	13.5	4	19.05
25	55.4	63	110	132	96.5	68.5	28	13.5	4	19.05
30	60.4	68	115	137	96.5	68.5	28	13.5	4	19.05
35	65.4	73	120	142	96.5	68.5	28	13.5	4	19.05
40	70.4	78	125	147	96.5	68.5	28	13.5	4	19.05
45	75.4	83	135	162	96.5	68.5	28	17.5	4	19.05
50	80.4	88	140	167	100	72	28	17.5	4	19.05
55	85.4	93	145	172	100	72	28	17.5	4	19.05
60	96	105	160	187	127.5	88	39.5	17.5	4	22.22
65	101	110	165	192	127.5	88	39.5	17.5	4	22.22
70	106	115	170	197	127.5	88	39.5	17.5	4	22.22
75	111	120	175	202	127.5	88	39.5	17.5	4	22.22
80	116	125	185	218	127.5	88	39.5	22	4	22.22
85	123.5	136	190	223	131.5	92	39.5	22	4	25.4
90	128.5	141	195	228	131.5	92	39.5	22	4	25.4
95	133.5	146	200	233	131.5	92	39.5	22	4	25.4
100	138.5	151	205	238	131.5	92	39.5	22	4	25.4
105	143.5	156	210	243	131.5	92	39.5	22	4	25.4
110	152.5	161	215	248	131.5	92	39.5	22	4	25.4

Dimensions in millimeter