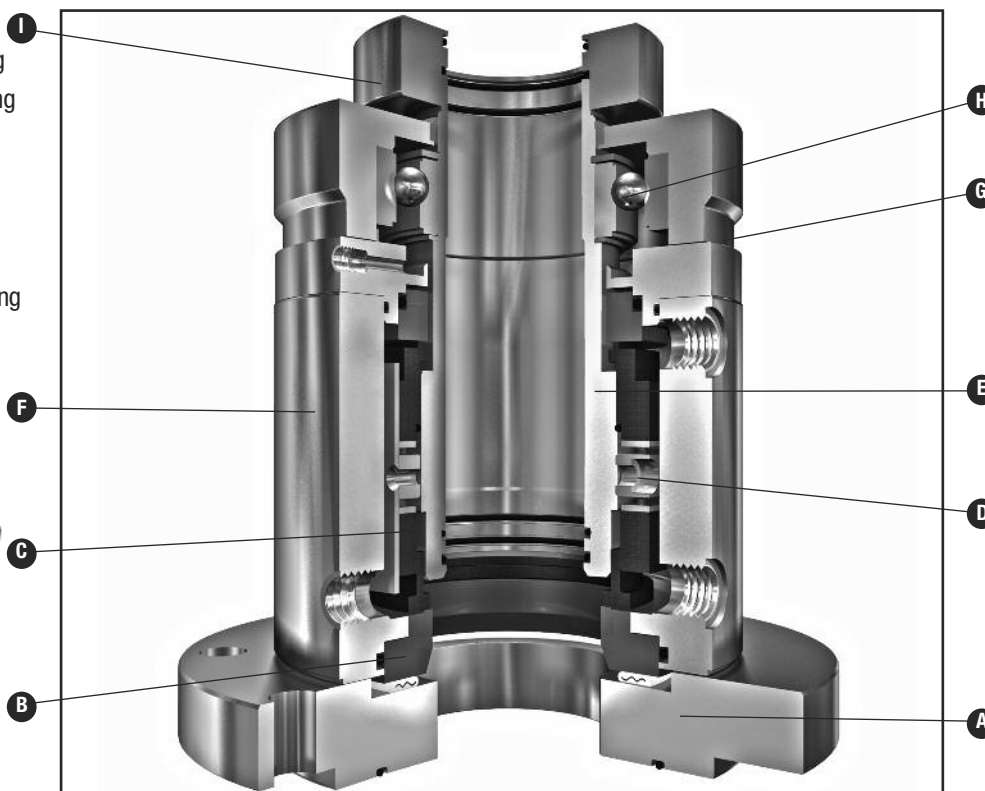


- A – DIN Flange
- B – Seat/Mating Ring
- C – Face/Primary Ring
- D – Retainer
- E – Sleeve
- F – Housing
- G – Gauging Edge
- H – Type CK726 Bearing
- I – Clamp Ring



### Product Description

The Type CK 728 vessel seal range is the high performance DIN cartridge solution for various industries including high purity pharmaceutical applications. They are available in wet lubricated, contacting dry running and non-contacting gas lubricated versions. The special modular design ensures maximum application flexibility through interchangeable sealing components. The cartridge design is standardised to fit on top entry, steel agitator vessels to DIN 28136, with mounting flange to DIN 28141 and agitator shaft end dimensions to DIN 28154.

All versions are suitable for operation in potentially explosive atmospheres. Depending on individual explosion protection requirements, the seal operating limits may differ from the values given in this data sheet. Consult John Crane for more information.

### Performance Capabilities\*

- Speed: 0 to 570 rpm
- Vessel pressure: vacuum to 25 bar(g) (W)  
(D: up to 16 bar(g); G, GD: up to 10 bar(g))
- Barrier pressure: maximum 27 bar(g) (W)  
(D: max. 17 bar(g); G, GD: max. 13 bar(g))
- Temperature: -40°C to +200°C  
-100°C special design
- Shaft run out: axial +/- 2.0 mm

\*Maximum values (dependant on combination of operating conditions).  
For details see chart operating limits in family brochure B-DINVesselSeals/Eng. For operating conditions outside these limits consult John Crane.

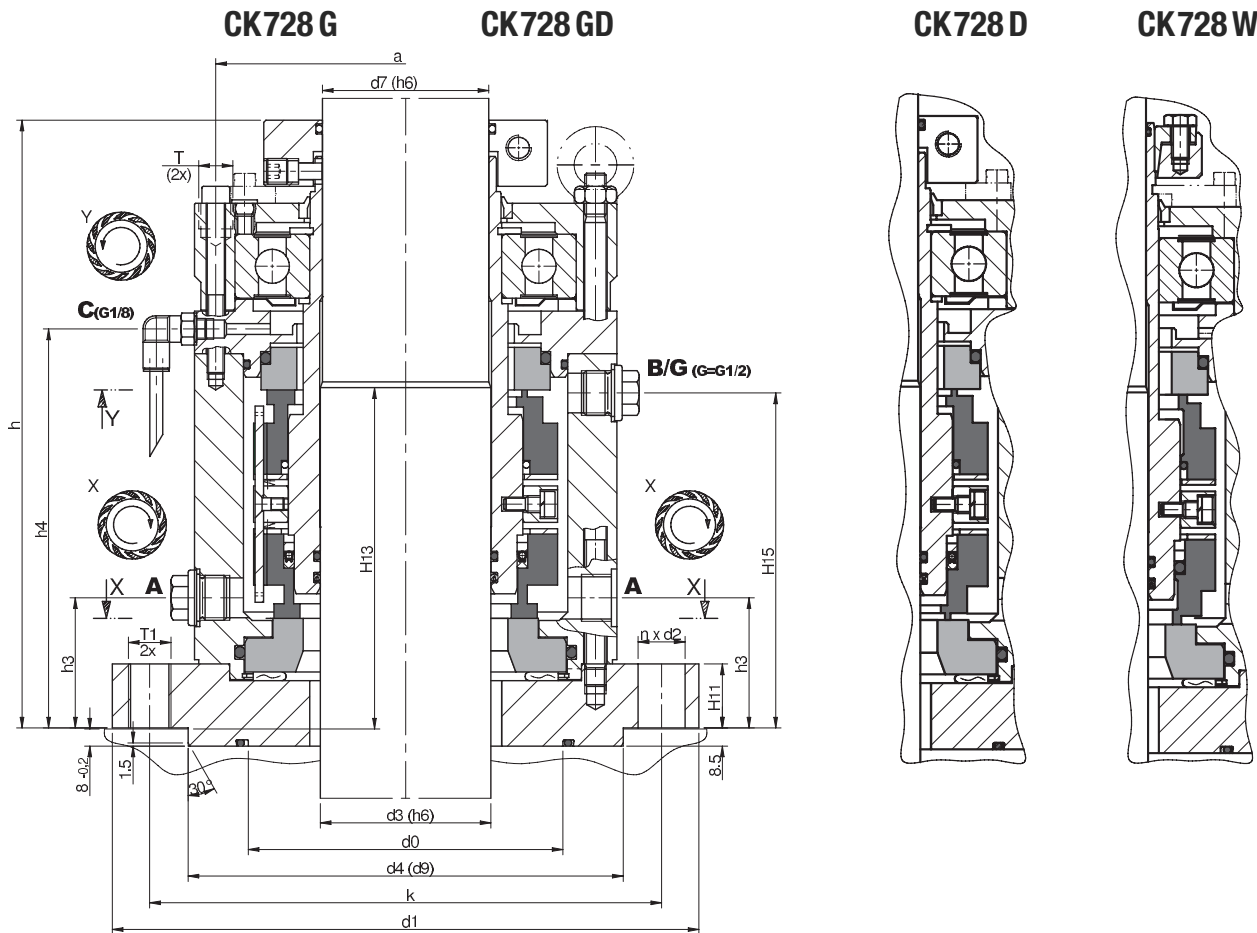
### Design Features

- Dual cartridge seal to DIN 28138 for stainless steel vessels
- Fits mounting flange to DIN 28141 and shaft end dimensions to DIN 28154
- Back-to-back seal arrangement with balanced faces
- Debris well and cooling flange options available
- Reverse pressure capabilities inboard
- Available in four variants of the lubrication system:
  - CK728 W - Liquid lubricated wet seal
  - CK728 D - Dry running contacting seal
  - CK728 G - Gas lubricated non-contacting seal
  - CK728 GD - Gas lubricated non-contacting inboard, Dry running outboard
- Special bearing design for high performance of non-contacting gas seals
- Special PTFE-based secondary sealing elements support a broad chemical and temperature application range
- Special carbon materials allow for exceptional operation with dry barrier gas without an external humidifier
- Special designs and material options available on request
- G design advantages include wear-free and particle-free operation, together with an easy supply system. In addition, the GD design reduces barrier gas consumption
- Suitable for application in explosive areas. Certificates of conformity according to European Directive 94/9/EC (ATEX) Cat. 1, 2 and 3 available on request

# TYPE CK728

## FOR STEEL VESSELS

### Type CK728 Typical Arrangement/Dimensional Data (mm)



Seal	Flange Connectivity				Fastening			Cartridge Dimensions						Connections & Mounting				
	d3	d0	d1	d4	k	n x d2	bolt	d7	h	h3	h4	H11	H13	H15	A & B	a	T	T1
40	91	175	110	145	145	4 x 18	M16	38	232	38	135	23	135	113	G 3/8	106	M12	M16
50	107	240	176	210	210	8 x 18	M16	48	250	51	167	25	140	141	G 3/8	136	M12	M16
60	116	240	176	210	210	8 x 18	M16	58	259	55	172	25	150	146	G 3/8	145	M12	M16
80	147	275	204	240	240	8 x 22	M20	78	285	61	187	30	160	157	G 1/2	178	M16	M20
100	173	305	234	270	270	8 x 22	M20	98	285	60	186	30	170	156	G 1/2	208	M16	M20
125	198	330	260	295	295	8 x 22	M20	120	310	53	201	30	195	172	G 1/2	235	M20	M20
140	218	395	313	350	350	12 x 22	M20	135	325	64	205	30	200	176	G 1/2	270	M20	M20
160	237	395	313	350	350	12 x 22	M20	150	325	65	206	30	205	176	G 1/2	295	M20	M20
180	263	445	364	400	400	12 x 22	M20	170	335	60	210	32	225	185	G 1/2	320	M24	M20
200	288	445	364	400	400	12 x 22	M20	190	370	60	225	32	235	185	G 1/2	340	M24	M20
220	326	505	422	460	460	16 x 22	M20	210	430	60	250	32	255	213	G 1/2	370	M24	M20

Dimensions according to DIN 28138 Part 1 & 3 and DIN 28154 - special dimensions and designs possible.



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