

Metal C-Rings Internal and External Pressure CI-CE

Features & Benefits

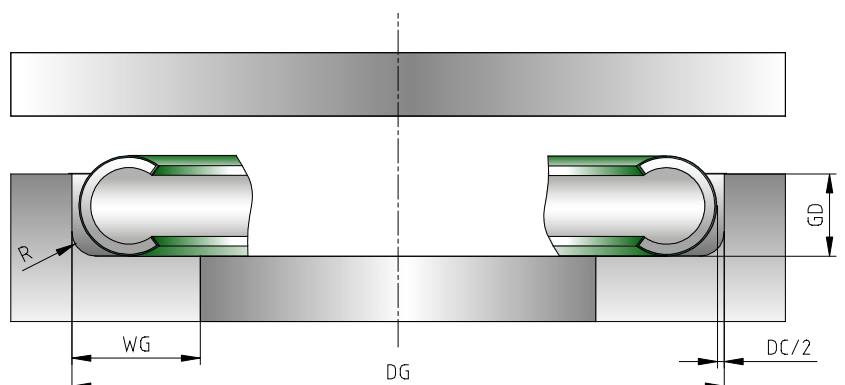
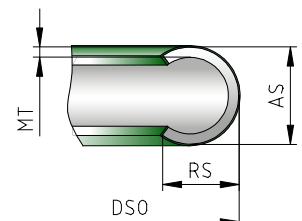
Features / Requirements	Benefits
Low to moderate sealing load	Suitable for softer flange materials (AL,...)
	Lower bolt force required
Increased spring back	Allows flange lift-off
Small sealing surface (line contact)	
Moderate seating stress	High sealing capability at low compression force
	Pressure activated
Critical circular surface finish required	
	Increased capabilities to withstand back pressure

Performance Indicators

- Unplated E-2 to E-4 mbar*L/s
- Plated E-4 to E-9 mbar*L/s
- Plated + spin polished E-5 to E-10 mbar*L/s

Typical Applications

- Aerospace (GT, fuel systems, hydraulics, satellites, propulsion)
- Oil and gas & power generation
 - GT, ST-casing, injection systems, heat exchangers
 - Nuclear waste (cask seals)
 - Equivalent for boss-seals
 - Valves
- High-end industrial applications
 - Valves
 - Cryocoolers
 - Turbo chargers
 - Exhaust
 - Lasers
- Vacuum applications
 - Double sealing solutions
 - Remote handling
- Hot mold



Seal & Groove Dimensions

Be aware that the tolerance on **GD**, the **DC**, different **materials**, **plating** and **diameter** can have a huge impact on the actual load and spring back of a seal. Please contact HTMS to evaluate your specific case.

O.R. = On Request

Seal Dimensions							Groove Dimensions			Data*			
DG	AS		RS	MT		DC	GD	WG	R	Average Load		Indicative SB	
Diameter Groove (range)	Axial Section	Tolerance on AS	Radial Section	Material Code / Thickness		Diameterical Clearance	Groove Depth (min/max)	Width Groove (min)	Radius (max)	N/mm Circumference		Spring back in mm	
				M	H					M	H	M	H
6 - 25	0.79	±0.05	0.71	0.13	0.18	0.08	0.64 - 0.69	1.02	0.25	30	60	0.04	0.03
8 - 50	1.19	±0.05	0.96	0.13	0.20	0.13	0.94 - 1.02	1.40	0.30	20	50	0.05	0.04
8 - 200	1.57	±0.05	1.26	0.15	0.25	0.15	1.27 - 1.37	1.91	0.38	15	50	0.08	0.06
10 - 200	2.00	±0.05	1.60	0.25	O.R.	0.20	1.60 - 1.68	2.30	0.45	35	O.R.	0.06	O.R.
10 - 200	2.20	±0.05	1.76	0.25	O.R.	0.22	1.76 - 1.85	2.50	0.47	30	O.R.	0.08	O.R.
10 - 400	2.39	±0.05	1.91	0.25	0.38	0.24	1.91 - 2.01	2.67	0.51	27	70	0.12	0.08
18 - 400	2.79	±0.05	2.25	0.38	O.R.	0.28	2.23 - 2.34	3.10	0.55	70	O.R.	0.11	O.R.
25 - 600	3.18	±0.08	2.54	0.38	0.51	0.32	2.54 - 2.67	3.43	0.76	50	105	0.15	0.12
32 - 600	3.60	±0.08	2.88	0.41	O.R.	0.36	2.88 - 3.02	3.90	0.90	55	O.R.	0.18	O.R.
32 - 750	3.96	±0.08	3.17	0.41	0.61	0.39	3.18 - 3.30	4.32	1.27	40	115	0.20	0.17
40 - 800	4.40	±0.08	3.52	0.41	O.R.	0.44	3.52 - 3.69	4.70	1.27	40	O.R.	0.21	O.R.
45 - 900	4.78	±0.10	3.82	0.51	0.76	0.47	3.84 - 3.99	5.08	1.27	60	140	0.23	0.18
75 - 900	5.00	±0.10	4.01	0.51	O.R.	0.50	4.00 - 4.20	5.30	1.27	55	O.R.	0.27	O.R.
75 - 900	5.20	±0.10	4.16	0.51	O.R.	0.52	4.16 - 4.37	5.50	1.27	50	O.R.	0.28	O.R.
75 - 1000	5.60	±0.10	4.50	0.51	O.R.	0.56	4.48 - 4.70	5.90	1.27	50	O.R.	0.30	O.R.
90 - 1200	6.35	±0.10	5.08	0.64	0.97	0.64	5.08 - 5.28	6.60	1.52	65	170	0.35	0.30
100 - 1500	7.90	±0.10	6.32	0.97	O.R.	0.79	6.32 - 6.58	8.22	1.52	120	O.R.	0.35	O.R.
100 - 2000	9.53	±0.10	7.62	0.97	1.27	0.96	7.62 - 8.03	9.65	1.52	100	185	0.50	0.32
500 - 3000	12.70	±0.13	10.16	1.27	1.65	1.27	10.16 - 10.67	12.70	1.52	125	230	0.55	0.48

* Seal data based on Alloy 718 with HT4, without plating.

Most common Materials & Codes

Jacket	
Code	Material
1	Alloy X-750
2	Alloy 718

Other materials on request