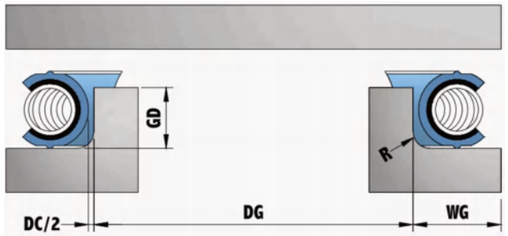
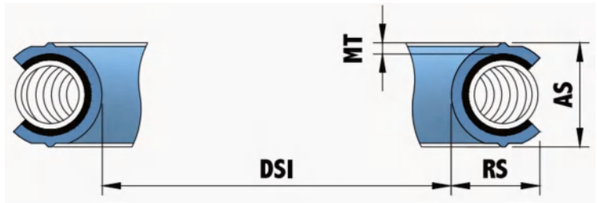
Blade Metal C-Ring External Pressure

Common Metallic Material Options
• Aluminum • Silver • Copper • Nickel • SS
Common Plating Options
• Silver

Groove and Seal Design





Seal: DSI = DG + DC + (Plating thickness X 2)

Groove: DG = DSI – DC - (Plating thickness X 2)

Groove Finish Recommendation

Groove finish is a critical factor for metal seal. Depend on different medium, Sonkit recommends the following groove surface roughnesses

Medium	For metal seal with plating	For metal seal without plating
Viscous media	Ra = 1.6 – 2.5	Ra = 0.8 – 1.6
Liquid media	Ra = 0.4 – 0.8	Unrecommended
Vacuum/ gases	Ra = 0.2 -0.6	Unrecommended

BCSE

Note: All dimensions are in mm. Performance data is based on Aluminumin. Actual performance should be accordingly considered due to various working conditions. For other Materials data, please contact Sonkit Sales.
As long as the minimum hardness requirements are upheld, there is typically minimal risk of harming the flange sealing surfaces.

Groove Dimension				Seal Dimension					Performance	
DG	GD	WG	R	RS	AS		M	DC	Load	Compression
Groove Diameter Range (mm)	Groove Depth Range (mm)	Width Groove	Radius (max)	Maximum Radial Section	Axial Section (Free Hight)	Tolerance on AS	Material Thickness	Diametrical clearance	N/mm Circumference	Optimum Compression (mm)
19-203	1.85-1.96	3.81	0.38	2.69	2.59	+0.13	0.51	0.51	140	0.6
25- 407	2.46-2.57	4.57	0.51	3.40	3.30	+0.13	0.97	0.76	140	0.7
50-508	3.05-3.15	5.33	0.51	4.09	3.99	+0.13	0.97	0.76	140	0.8
76-762	3.84-3.99	6.22	0.51	4.90	4.80	+0.13	0.97	0.89	140	0.9
101-762	4.50-4.65	7.11	0.76	5.79	5.59	+0.13	0.97	1.02	150	1
127-762	5.51-5.66	8.13	0.76	6.91	6.71	+0.13	0.97	1.02	150	1.1

Typical Applications

• Electronic Enclosures • Satellite Systems • Mass Flow Controllers
• Laser & RF Guidence Systems • Chamber Lids • Exhaust Lines

In house lab
In house HT
Test Report