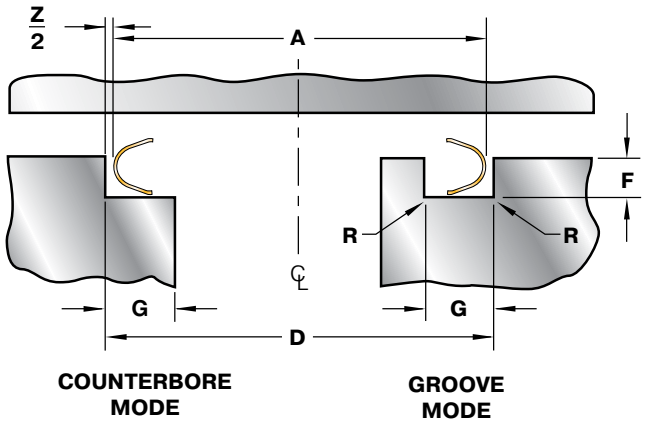
EUI Metal U-Ring Internal Pressure Face Seal

Applications:

- High temperature joints with significant movement.
- Up to 1450°F depending on material and application parameters. If application temperature exceeds range, contact Parker.
- Retrofittable in (3/32" cross section and larger) metal O-ring grooves for lower load and greater springback.

Features:

- Compliant low load seal, generally used unplated.
- Strongly pressure energized.
- Four standard sections and any diameter from 1.75" to 48".
- Radiused footprint area protects mating surfaces.
- Well supported heel and sides ensure highest pressure capability.
- Good all around performance, economically priced.



Cavity Dimensions				
Nominal Cross Section	D	F	G	R
	O.D. Range Tolerance H10	Depth Range	Minimum Width	Maximum Radius
3/32	1.750 – 16.000	0.074 – 0.080	0.125	0.020
1/18	2.500 – 24.000	0.100 – 0.107	0.160	0.030
3/16	3.375 – 36.000	0.150 – 0.157	0.250	0.050
1/4	6.000 – 48.000	0.200 – 0.208	0.350	0.060

All dimensions are in inches. The tolerance reference table can be found on page F-85.

Part Numbering:

Refer to Section A, page A-9 for part numbering convention.
The seal size is specified in the part number as follows:

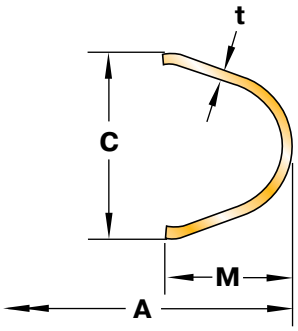
EUI - 000000 - 00 - 00 - 0

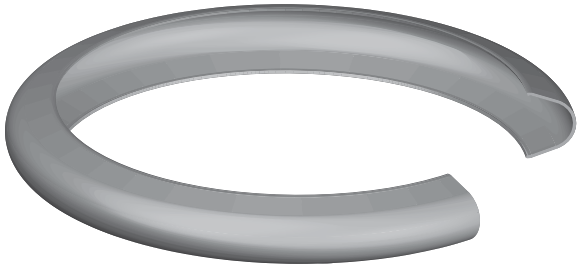
Seal I.D. (dimension A) to three decimal places. (Example: A 3.000 inch seal is specified as 003000)

Metal Seal Cross Section Code

Material (Section D)

Temper (Section D)





Seal and Cavity Sizing:

Seal free height is based on cavity diameter and depth alone. Seal diameter (dimension A) is derived below.

$$A = D - Z$$

(tolerance h11, see page F-85)

Where: D = Minimum cavity O.D.

Z = Diametral clearance between cavity and seal

Seal Dimensions						Performance		
Nominal Cross Section	Z Diametral Clearance	C Free Height	t Material Thickness	M Maximum Radial Width	Cross Section Code	Seating Load (pounds per inch circumference)	Springback (inches)	Working* Pressure Rating (psi)
3/32	0.003	0.093 ± 0.004	0.010	0.098	07	45	0.010	12000
1/8	0.005	0.125 ± 0.005	0.012	0.131	09	50	0.014	12000
3/16	0.006	0.185 ± 0.005	0.015	0.198	13	50	0.020	8000
1/4	0.008	0.247 ± 0.006	0.020	0.262	15	70	0.026	8000

All dimensions are in inches.
Performance data is based on Alloy 718 material with -6 treatment. Seal performance is discussed in Section F.
*If working pressures exceed these ratings consult Parker for recommendations.