"KF-Type" Centering Ring Seal Assembly

fact sheet

"KF-Type" Flange Seals

Within critical semiconductor vacuum environments, KF centering ring seal assemblies must maintain a reliable, effective vacuum seal. In order to assure maximum seal performance, O-rings on these assemblies must provide low compression set and high retained resiliency. Parker's full range of KF type centering rings are available in standard ISO sizes assembled with Parker O-ring materials commonly used in semiconductor wafer processing systems.

A variety of material choices are available in stainless steel or aluminum centering ring assemblies. O-ring materials are available in nitrile, (for moderate temperature), fluorocarbon (for moderate chemistries up to 400°F) and Parofluor ULTRA™ perfluorinated elastomers (for high purity, aggressive chemistries and temperatures up to 608°F).

Parker Advantages

- Leading technology in O-ring elastomer materials
- Excellent compression set resistance
- Broadest range of materials offering
- High performance physical properties
- Parker's total batch control and traceability of O-rings
- Application engineering assistance
- Local stocking distributor and Parker Service Center (PSC) network
- Clean room packaging available on request
- Total sealing product solutions

*Available Standard O-ring Materials**

Material	Color	Nominal Hardness (Shore A)	Temperature Range	Features
Nitrile (Buna-N, NBR)				
N0674-70	Black	70	-30° to 250°F (-34°C to 121°C)	General service
Fluorocarbon (FKM)				
V0747-75	Black	75	-15° to 400°F (-25°C to 205°C)	General purpose, compression set resistant, high resiliency FKM
V0884-75	Brown	75	-15° to 400°F (-25°C to 205°C)	
Parofluor ULTRA™ (perfluorinated elastomer FFKM)				
FF200-75	Black	75	5°F to 608°F (-15°C to 320°C)	High temperature, low compression set, high resiliency, chemical resistance
FF202-90	Black	90	5°F to 608°F (-15°C to 320°F)	Extrusion resistant, high temperature, low compression set, high resiliency, chemical resistance
FF350-75	White	75	5°F to 600°F (-15°C to 316°C)	High purity, high temperature, low compression set, high resiliency, chemical resistance
FF500-75	Black	75	5°F to 525°F (-15°C to 275°C)	Best chemical resistance, low compression set, high resiliency

**These are standard materials. Other O-ring materials are available. Contact applications engineering for materials not listed.*

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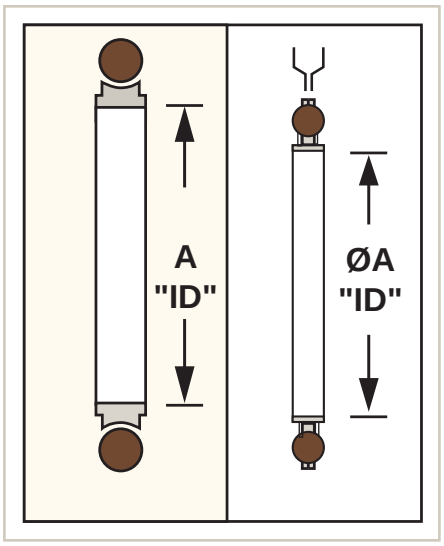
Build With the Best!
QS 9000/ISO 9001/AS 9000
Certified

Parker
Seals

SEMICONDUCTOR

Centering Ring Metal Materials are available in:

- Stainless Steel
- Aluminum



Centering Ring Seal Assembly

Centering Ring Spacer Seal Assembly

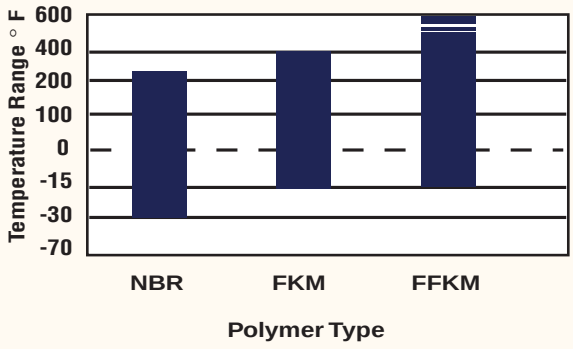
Centering Ring Assembly Flange Size	Size	A	O-ring Size	Parker Part Number*
NW-10	1/2	.456	2-312	*XXXXX 2-312-CRNW-10/ZZZ
NW-16	3/4	.625	2-314	*XXXXX 2-314-CRNW-16/ZZZ
NW-25	1	.964	2-320	
NW-40	1 1/2	1.560	2-326	Example: V0884 2-326-CRNW-40/SST
NW-50	2	1.967	2-330	
Centering Ring Spacer Assembly Flange Size	**Size**	**A**	**O-ring Size**	**Parker Part Number***
NW-63	2 1/2	2.630	2-336	*XXXXX 2-336-CRNW-63/ZZZ
NW-80	3	3.140	2-340	*XXXXX 2-340-CRNW-80/ZZZ
NW-100	4	3.890	2-346	
NW-160	6	5.900	2-361	Example: V0884 2-361-CRNW-160/SST
NW-200	8	8.260	2-371	
NW-250	10	10.140	2-378	
NW-320	12	12.180	2-454	

**XXXXX = REFERENCE Parker O-Ring material desired*

ZZZ= Reference metal required

SST= Stainless steel

AL= Aluminum



Thermal Stability of Semiconductor Elastomers

The temperature limits assigned to compounds in this table are offered as guidelines only, and are dependent upon the application and the specified Parker compound.

Total System Solutions:

Parker's Seal Group offers a complete line of O-rings, custom molded shapes, composite (rubber/metal and rubber/plastic) seals, PTFE and thermoplastic seals, bumpers, dust covers, diaphragms, isolators, washers and thermoset injection molded boots and bellows, as well as a complete line of thermally and/or electrically conductive materials for a wide variety of applications. Parker's "total systems sealing" approach can help customers reduce costs and improve efficiency.

7/02-5C-CE

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