



Mobile inPHorm Design Analysis

Compound Selection

Compound No.: N0674-70
Durometer: 70
Polymer Family: Nitrile
Uses: General Purpose, MIL-G-21569 CL 1, UL Listed
Low Temp: -30°F
High Temp: 250°F
Color: BLACK

Gland Design - Face Seal

Series: Design Groove For Me
Size: Design Groove For Me
Application: External Pressure, Liquid
Unit of Measure: in

Design Groove For Me O-Ring Dimensions (in)

	Nominal	+/-tol
Inner Diameter(ID)	.3937	0.005
Cross Section(W)	.0591	0.003

External Pressure, Liquid Suggested Gland Dimensions

	Nominal	+tol	-tol
Gland Inner Diameter	0.394	0.010	0.000
Gland Depth (L):	0.044	0.002	0.000
Gland Width (G):	0.089	0.010	0.000
Plate Gap (E):	0.000	0.000	0.000

Resulting Tolerance Stackups

	Min	Nom	Max	Ideal
Stretch	None	None	3.86%	None
Squeeze	21.43%	25.42%	32.26%	19-32%
Volume Fill	57.95%	65.48%	90.60%	60-90%
OD Interference	None	None	None	0-2%

Selected Material: N0674-70

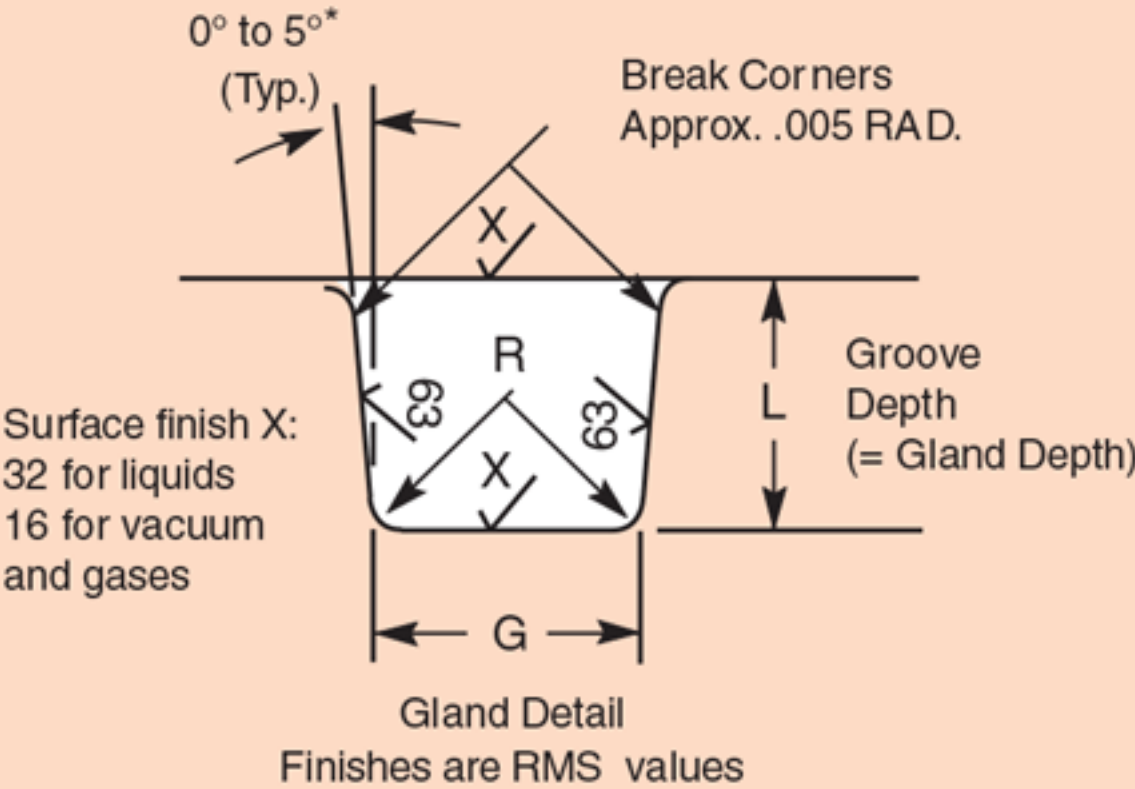
DANGER: FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF SEALS OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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Note: inPHorm size calculations conform to the standard O-ring sizes per AS 568A as shown in Table B6 of the on-line REFERENCE GUIDE (Parker Catalog ORD5700). The 5 dash series sizes are non-standard and have been created to special tooling specifications. The dimensions may vary due to materials with unusual shrinkage.



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For Internal Pressure
(outward pressure direction)
dimension the groove by its
outside diameter (H_o) and width:

$$(H_o) = \text{Mean O.D. of O-ring}$$

Tolerance = Minus 1% of Mean
O.D., but not more than
-.060

For External Pressure
(inward pressure direction)
dimension the groove by its
inside diameter (H_i) and width:

$$(H_i) = \text{Mean I.D. of O-ring}$$

Tolerance = Plus 1% of Mean
I.D., but not more than
+.060

