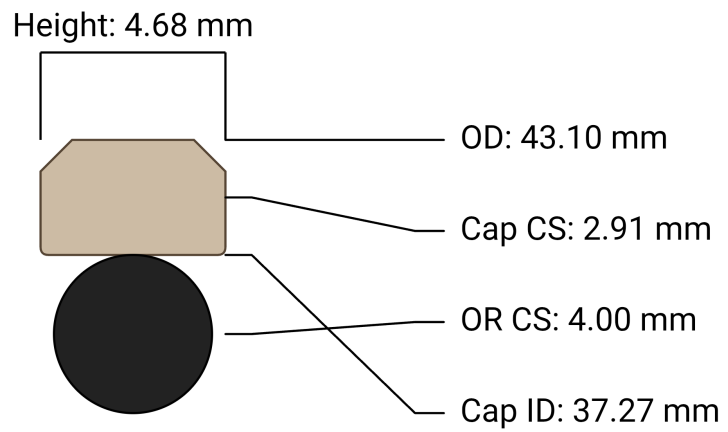


Input: 30.00 mm x 42.70 mm x 5.00 mm | Metric | Groove Dimensions



**FINISHED PART SPECIFICATION**

NOMINAL O-RING ID  
**29.270 mm**

O-RING MIN ID  
**28.685 mm**

O-RING MAX ID  
**29.768 mm**

Input: 30.00 mm x 42.70 mm x 5.00 mm | Metric | Groove Dimensions

## DETAILED ENGINEERING DIMENSIONS

All dimensions are nominal values in millimetres. Apply the per-row tolerance listed on the Quality Control & Bill of Materials page (Page 3) at inspection.

Ref	Dimension	Target (mm)	Notes
A	Finished Seal OD	43.100	Outer cylindrical sealing surface
B	Finished Seal ID (Cap ID)	37.270	Inner cylindrical surface of the cap
C	Axial Seal Height	4.680	Overall part height along the seal axis
D	Cap Radial Cross-Section	2.910	Wall thickness of the energized cap
E	Energizer O-Ring Cross-Section	4.000	Stock O-Ring nominal cross-section
F	Nominal O-Ring ID	29.270	Per spec box: capID - (oringCS x 2)
G	Hardware Groove Width	5.000	Recommended customer hardware groove

## SECONDARY FEATURE GEOMETRY

Ref	Dimension	Target (mm)	Notes
R1	Cap Corner Radius	0.200	Applied at both inner cap corners (typ.)
R2	O-Ring Pocket Corner Radius	0.200	Matches cap corner radius for fit
C1	Cap End-Face Chamfer	0.800	45° break on both axial faces (typ.)
C2	Cap Outer-Edge Chamfer	0.800	Applied symmetrically on top + bottom

## TOLERANCE SCHEDULE

- Finished Seal OD tolerance: +0.40 / -0.20.
- Cap Radial Cross-Section tolerance: +/- 0.05.
- Axial Seal Height tolerance: +/- 0.05 mm unless otherwise noted.
- Energizer O-Ring Cross-Section tolerance: +/- 0.08 mm.
- Chamfer dimensions are nominal; +/- 0.10 mm acceptable.
- Corner radii are nominal; +/- 0.10 mm acceptable.
- All unspecified machined surfaces: Ra 1.6 um or better.

Input: 30.00 mm x 42.70 mm x 5.00 mm | Metric | Groove Dimensions

## QUALITY CONTROL & BILL OF MATERIALS

Ref	Description	Target (mm)	Tolerance	QC Check
1	Axial Seal Height	4.680	± 0.05 mm	<input type="checkbox"/>
2	Finished Seal OD	43.100	+0.40 / -0.20 mm	<input type="checkbox"/>
3	Cap Radial C/S	2.910	+/- 0.05 mm	<input type="checkbox"/>
4	O-Ring C/S	4.000	± 0.08 mm	<input type="checkbox"/>
5	Min O-Ring Stock ID	28.685	Per stock specification	<input type="checkbox"/>
6	Max O-Ring Stock ID	29.768	Per stock specification	<input type="checkbox"/>
7	Cap Material	Bronze Filled PTFE	Per Material Spec	<input type="checkbox"/>
8	Energizer Material	NBR 70	Per Material Spec	<input type="checkbox"/>

## INSPECTION NOTES

1. All dimensions are in millimetres unless otherwise noted.
2. Source the energizer O-Ring within the Min / Max Stock ID range published in the spec box on Page 1.
3. Verify the energizer C/S and the cap radial C/S independently against the targets above.
4. The finished seal OD tolerance band must match the customer's hardware groove OD specification.
5. QC operator: tick each row above only after the dimension has been verified on the calibrated gauge.