

Quality Standards

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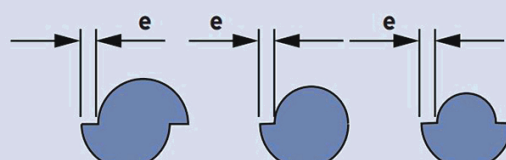
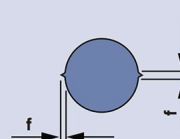
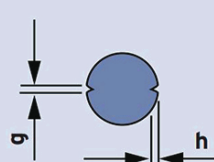
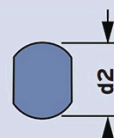
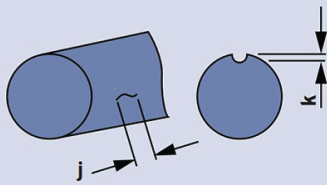
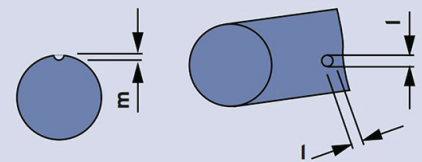
The cost-effective use of O Rings is influenced to a great extent by the definition of quality criteria. The choice of the compound according to the quality characteristics influence the costs and the reliability of use. ISO3601/3-DIN 3771/4 defines permissible form and surface deviations. Distinctions are made in the table between permissible flaw sizes according to type characteristics.

Type characteristic N.

O Rings falling under this characteristic meet the requirements made on a standard quality. They satisfy the demands made on static and dynamic seals. If no other demands are specified, M Barnwell Services supply O Rings with type characteristic N.

Type characteristics S.

O Rings falling under type characteristics S are subject to exceptional demands, e.g. for safety relevant components in automobile engineering. The permissible flaw sizes are very limited. This demands a greater process technology and stricter quality control procedures.

	Limits for permissible form and surface deviations in accordance with DIN 3771/4											
Types of deviation	Cross sections in principle	Size	Type Characteristic N					Type Characteristic S				
			1.8	2.65	3.55	5.3	7.0	1.8	2.65	3.55	5.3	7.0
			d ₂ Maximum Size					d ₂				
Offset and form deviations		e	0.08	0.10	0.13	0.15	0.15	0.08	0.08	0.10	0.12	0.13
Bead, burr, offset combined		f	0.10	0.12	0.14	0.16	0.18	0.10	0.10	0.13	0.15	0.15
Notch		g	0.18	0.27	0.36	0.53	0.70	0.10	0.15	0.20	0.20	0.30
		h	0.08	0.08	0.10	0.10	0.13	0.08	0.08	0.10	0.10	0.13
Deburring area		Deviations from the round cross section are permissible if the flattening has a smooth transition into the round surface and d ₂ is maintained.										
Flow lines (radial elongation is not permissible)		j	0.05 x d ₁ or ¹⁾					0.03 x d ₁ or ¹⁾				
		k	1.50	1.50	6.50	6.50	6.50	1.50	1.50	5	5	5
Recesses, distortion		l	0.60	0.80	1.00	1.30	1.70	0.15	0.25	0.40	0.63	1.00
		m	0.08	0.08	0.10	0.10	0.13	0.08	0.08	0.10	0.10	0.13
Foreign particles		Not permissible										

¹⁾ Depending on which value is larger

Special Mouldings

M Barnwell Services manufacture, supply and distribute custom-moulded rubber elements and bespoke engineered components to the most precise specifications. We can meet your quantity requirements, from a one-off part, up to 1 million+ parts. Critical thinking is fundamental to our company, providing customers with precise design arrangements. Using the most up to date manufacturing methods and latest elastomer materials, we can deliver custom-moulded elastomer profiles and shapes to meet your requirements. By working diligently and closely with our clients, our engineers are able to manufacture advanced, durable and cost-effective sealing solutions that have an improved lifespan and require less maintenance.

M BARNWELL SERVICES: THE UK'S LARGEST INDEPENDENT MANUFACTURER, STOCKIST & DISTRIBUTOR OF O RINGS

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