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AMENDMENT 1
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Fluid power systems — O-rings —

Part 3: Quality acceptance criteria

AMENDMENT 1

Transmissions hydrauliques et pneumatiques — Joints toriques —
Partie 3: Critères de qualité
AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 7, *Sealing devices*.

A list of all parts in the ISO 3601 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Fluid power systems — O-rings —

Part 3:
Quality acceptance criteria

AMENDMENT 1

Page 1, Scope

Replace the Scope with the following new Scope:

> This document defines the quality acceptance criteria of O-rings used in fluid systems, the dimensions of which are standardized in ISO 3601-1, ISO 16031-1 and ISO 16031-2. The ISO 3601 series of standards basically addresses O-rings with moulded cross-sections without a radial joint.
>
> This document also defines and classifies surface imperfections on O-rings and specifies maximum acceptable limits for these imperfections.
>
> This document is also applicable to O-rings to be used in aerospace construction.

Page 5, Table 1

Replace Table 1 with the new Table 1 as shown below.

In accordance with Amendment 1 for ISO 3601-1:2012, three tolerance ranges for cross section diameters d_2 > 8,4 mm were added. In addition, criterion *a* ("flash") for the combined flash was deleted for Grade N and Grade S O-rings.

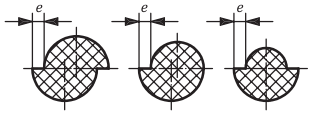
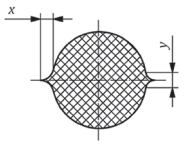
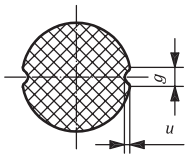
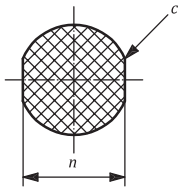
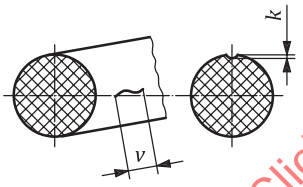
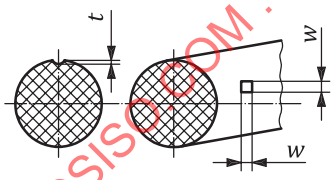
Page 6, Table 2

Replace Table 2 with the new Table 2 as shown below.

Criterion *a* ("flash") for the combined flash was deleted for Grade N and Grade S O-rings.

Table 1 — Limits of size for surface imperfections for Grade N O-rings

Dimensions in millimetres

Surface imperfection type	Diagrammatic representation	Limiting dimensions	Maximum limits of imperfections Grade N O-rings Cross-section, d_2							
			≥0,8[b] ≤2,25	>2,25 ≤3,15	>3,15 ≤4,50	>4,50 ≤6,30	>6,30 ≤8,40	>8,40 ≤10,00	>10,00 ≤12,00	>12,00 ≤14,00[b]
Off-register, mismatch (offset)		*e*	0,08	0,10	0,13	0,15	0,15	0,19	0,22	0,25
Combined flash (combination of offset, flash and parting line projection)		*x*	0,10	0,12	0,14	0,16	0,18	0,20	0,23	0,26
		y	0,10	0,12	0,14	0,16	0,18	0,20	0,23	0,26
Backrind		*g*	0,18	0,27	0,36	0,53	0,70	0,90	1,10	1,30
		u	0,08	0,08	0,10	0,10	0,13	0,16	0,16	0,18
Excessive trimming (radial tool marks not allowed)		*n*	Trimming is allowed provided the dimension *n* is not reduced below the minimum diameter d_2 for the O-ring.							
Flow marks (radial orientation of flow marks is not permissible)		*v*	1,50[a]	1,50[a]	6,50[a]	6,50[a]	6,50[a]	6,50[a]	8,50[a]	8,50[a]
		k	0,08	0,08	0,08	0,08	0,08	0,08	0,10	0,10
Non-fills and indentations (including parting line indentations)		*w*	0,60	0,80	1,00	1,30	1,70	2,20	2,50	2,80
		t	0,08	0,08	0,10	0,10	0,13	0,15	0,16	0,18

[a] Or 0,05 times the O-ring's inside diameter (d_2), whichever is greater.

[b] Limits of imperfections for cross sections $d_2 < 0{,}8$ mm or $d_2 > 14$ mm shall be agreed upon between manufacturer and customer.

[c] Round edges.