

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1077

DIMENSIONS OF ELASTOMERIC TOROIDAL SEALING RINGS

iTeh STANDARD PREVIEW

FOR PIPE-FITTINGS IN AIRCRAFT

(standards.iteh.ai)

(INCH SERIES — CLASS 1 TOLERANCES)

ISO/R 1077:1969

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**DIMENSIONS OF ELASTOMERIC TOROIDAL SEALING RINGS
FOR PIPE-FITTINGS IN AIRCRAFT
(INCH SERIES – CLASS 1 TOLERANCES)**

1. SCOPE

This ISO Recommendation states the dimensions and a method of designation for a range of elastomeric toroidal sealing rings in inch sizes with Class 1 tolerances, suitable for use with pipe-fittings screwed into tapped bosses conforming to the dimensions stated in an ISO Recommendation at present in preparation. It does not make reference to materials to be used for the rings. Rings with Class 2 tolerances are the subject of ISO Recommendation R . . .*, *Dimensions of elastomeric toroidal sealing rings for pipe-fittings in aircraft (Inch series – Class 2 tolerances)*.

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2. DIMENSIONS

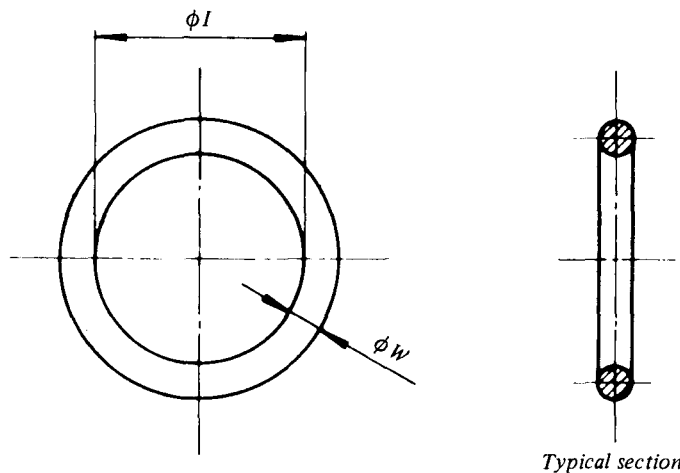
The dimensions of toroidal rings for use with pipe-fittings screwed into tapped bosses should comply with the Table opposite.

3. DESIGNATION

The sealing rings should be designated by the ring size numbers quoted in the Table opposite.

* At present Draft ISO Recommendation No. 1799.

TABLE – Dimensions of elastomeric toroidal sealing rings for pipe-fittings in aircraft
(Inch series – Class 1 tolerances)



| Ring size | Nominal overall diameter of tubing | | ϕW | | | | ϕI | | | |
|-----------|------------------------------------|--------|----------|-------|-------|-------|----------|-------|-------|-------|
| | | | mm | | in | | mm | | in | |
| | mm | in | max. | min. | max. | min. | max. | min. | max. | min. |
| 901 | 2.383 | 0.0938 | 1.499 | 1.346 | 0.059 | 0.053 | 4.83 | 4.57 | 0.190 | 0.180 |
| 902 | 3.175 | 0.125 | 1.702 | 1.549 | 0.067 | 0.061 | 6.20 | 5.94 | 0.244 | 0.234 |
| 903 | 4.763 | 0.1875 | 1.702 | 1.549 | 0.067 | 0.061 | 7.77 | 7.52 | 0.306 | 0.296 |
| 904 | 6.350 | 0.250 | 1.905 | 1.753 | 0.075 | 0.069 | 9.04 | 8.79 | 0.356 | 0.346 |
| 905 | 7.938 | 0.3125 | 1.905 | 1.753 | 0.075 | 0.069 | 10.64 | 10.39 | 0.419 | 0.409 |
| 906 | 9.525 | 0.375 | 2.057 | 1.905 | 0.081 | 0.075 | 12.01 | 11.76 | 0.473 | 0.463 |
| 907 | 11.113 | 0.4375 | 2.159 | 2.007 | 0.085 | 0.079 | 13.59 | 13.34 | 0.535 | 0.525 |
| 908 | 12.700 | 0.500 | 2.286 | 2.134 | 0.090 | 0.084 | 16.48 | 16.23 | 0.649 | 0.639 |
| 909 | 14.288 | 0.5625 | 2.540 | 2.388 | 0.100 | 0.094 | 18.06 | 17.81 | 0.711 | 0.701 |
| 910 | 15.875 | 0.625 | 2.540 | 2.388 | 0.100 | 0.094 | 19.30 | 19.05 | 0.760 | 0.750 |
| 911 | 17.463 | 0.6875 | 3.048 | 2.845 | 0.120 | 0.112 | 22.05 | 21.79 | 0.868 | 0.858 |
| 912 | 19.050 | 0.750 | 3.048 | 2.845 | 0.120 | 0.112 | 23.62 | 23.32 | 0.930 | 0.918 |
| 913 | 20.638 | 0.8125 | 3.048 | 2.845 | 0.120 | 0.112 | 25.20 | 24.89 | 0.992 | 0.980 |
| 914 | 22.225 | 0.875 | 3.048 | 2.845 | 0.120 | 0.112 | 26.75 | 26.44 | 1.053 | 1.041 |
| 916 | 25.400 | 1.000 | 3.048 | 2.845 | 0.120 | 0.112 | 29.90 | 29.59 | 1.177 | 1.165 |
| 918 | 28.575 | 1.125 | 3.048 | 2.845 | 0.120 | 0.112 | 34.57 | 34.26 | 1.361 | 1.349 |
| 920 | 31.750 | 1.250 | 3.099 | 2.896 | 0.122 | 0.114 | 37.72 | 37.21 | 1.485 | 1.465 |
| 924 | 38.100 | 1.500 | 3.099 | 2.896 | 0.122 | 0.114 | 43.94 | 43.43 | 1.730 | 1.710 |
| 928 | 44.450 | 1.750 | 3.099 | 2.896 | 0.122 | 0.114 | 53.34 | 52.83 | 2.100 | 2.080 |
| 932 | 50.800 | 2.000 | 3.099 | 2.896 | 0.122 | 0.114 | 59.61 | 59.11 | 2.347 | 2.327 |

BRIEF HISTORY

The ISO Recommendation R 1077, *Dimensions of elastomeric toroidal sealing rings for pipe-fittings in aircraft (Inch series – Class 1 tolerances)*, was drawn up by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of a Draft ISO Recommendation.

In March 1968, this Draft ISO Recommendation (No. 1488) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

| | | |
|----------------|-------------|----------------|
| Belgium | Italy | Thailand |
| Brazil | Netherlands | Turkey |
| Canada | New Zealand | U.A.R. |
| Czechoslovakia | Portugal | United Kingdom |
| France | Spain | Yugoslavia |
| Israel | Switzerland | |

One Member Body opposed the approval of the Draft ISO R 1077:1969

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U.S.S.R.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, in May 1969, to accept it as an ISO RECOMMENDATION.