

## A Guide to International Paper Sizes

**WHO SHOULD READ THIS BULLETIN:**

*Any person who designs or produces printed materials for international use.*

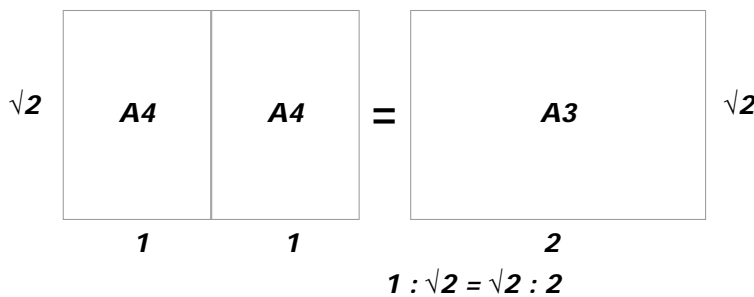
Have you ever received a letter from Europe or Asia and wondered why it wouldn't fit in your file folder or three-ring binder? Most people in the world must have the same feelings when they get 8 1/2" x 11" materials from us. That's because metrics, not U.S. measurements, rule the universe.

Therefore, before preparing publications for distribution abroad, you need to understand the basics of ISO (International Standards Organization) paper standards.

Paper sizes like A3, A4 and A5 are used everywhere in the world, with the exception of Canada and the United States. ISO standards, we're told, are rational and easy to follow. But, are they? This *TechTopics* issue addresses the question and offers some practical information to help you deal with ISO issues.

### The ISO Paper Size Concept

ISO paper sizes are based on the metric system. All pages have a height to width ratio of the square root of two (1:1.4142). This aspect ratio is especially convenient for a paper size. If you put two pages with this aspect ratio next to each other, the resulting page will have the same width/height ratio.



This sounds logical. However, the ISO found that the square root ratio rule didn't provide nicely rounded metric lengths. Therefore, adjustments were required.

ISO 216 defines the **A Series** of paper sizes as follows:

- The height divided by the width of all formats is the square root of two (1.4142).
- The standardized height and width of the paper formats is a rounded number of millimeters.

### Other Standards Required

Even though the A system made sense, it didn't provide a suitable format for all situations. Enter the **B Series**, introduced to cover a wider range of paper sizes. This was followed by the **C Series** for envelopes. Then, you have Japan and JIS P 0138-61. This standard defines the A Series the same as ISO 216, but contains slightly different B Series paper sizes (often called the JIS B or JB Series).

*Note: Maybe North America's measurements system isn't so bad after all!*

**Here are the most common paper sizes for international documents.**

Number	Millimeters	Inches
A3	297 x 420	11 11/16 x 16 17/32
A4	210 x 297	8 17/64 x 11 11/16
A5	148 x 210	5 25/32 x 8 17/64

*Note: You needn't look any further than your copier or fax machine to get an idea of A sizes. Virtually all of these machines have one or more of these designations shown on the paper tray.*

### Drilling

ISO 838 specifies that for filing purposes, two holes of 6± 0.5 mm diameter can be punched into the sheets. The centers of the two holes are 80± 0.5 mm apart and have a distance of 12± 1 mm to the nearest edge of the sheet.

The two middle holes correspond to ISO 838 specifications. Two additional holes—located 80 mm above and below the middle holes—are added for stability. With this configuration, sheets with four punched holes can also be filed in ISO 838 2-hole binders.

### Wide Range of Paper Stocks

Copresco can help you with paper stock selection for international sizes. A wide range of text and cover weights and colors are available, with or without 2 or 4-hole drilling.

Like all Copresco jobs, we offer complete index tab imprinting, laminating and insertion and complete bindery, finishing and shipping services.

The following table shows the width and height of all ISO A and B paper formats, as well as ISO C envelopes.

<i>A Series Formats</i>		<i>B Series Formats</i>		<i>C Series Formats</i>	
4A0	1682 x 2378 mm	-		-	
2A0	1189 x 1682 mm	-		-	
A0	841 x 1189 mm	B0	1000 x 1414 mm	C0	917 x 1297 mm
A1	594 x 841 mm	B1	707 x 1000 mm	C1	648 x 917 mm
A2	420 x 594 mm	B2	500 x 707 mm	C2	458 x 648 mm
A3	297 x 420 mm	B3	353 x 500 mm	C3	324 x 458 mm
A4	210 x 297 mm	B4	250 x 353 mm	C4	229 x 324 mm
A5	148 x 210 mm	B5	176 x 250 mm	C5	162 x 229 mm
A6	105 x 148 mm	B6	125 x 176 mm	C6	114 x 162 mm
A7	74 x 105 mm	B7	88 x 125 mm	C7	81 x 114 mm
A8	52 x 74 mm	B8	62 x 88 mm	C8	57 x 81 mm
A9	37 x 52 mm	B9	44 x 62 mm	C9	40 x 57 mm
A10	26 x 37 mm	B10	31 x 44 mm	C10	28 x 40 mm

## **Tech***Topics*

### **Details**

This technical bulletin was produced on our Docutech system from a QuarkXPress 3.32 digital file. The paper stock is Cougar Opaque 65 lb. cover. Index tab die cutting and laminating performed on our Scott system.

## **General Information**

Our staff will gladly answer your questions about software applications, digital files preparation and transmission, paper stocks, binding and our high-speed digital printing services.

*TechTopics* is a continuing series of technical bulletins on digital technology, document preparation and on-demand printing.

To obtain additional copies or back issues, please call, fax or e-mail us.

*TechTopics* issues are also available in PDF format on our website.

## **Our Thanks**

*To Markus Kuhn of the University of Cambridge, United Kingdom, for background information and illustrations used in this TechTopics issue.*

*For further details, we highly recommend his comprehensive article on International Paper Sizes. It can be reviewed at:*

<http://www.cl.cam.ac.uk/~mgk25/iso-paper.html>



262 Commonwealth Drive • Carol Stream, IL 60188

Phone: (630) 690-2000 • Fax: (630) 690-8182

[techttopics@copresco.com](mailto:techttopics@copresco.com) • [www.copresco.com](http://www.copresco.com)

© 2000 Copresco/Copies Overnight, Inc.