

## RIVET SPACING RULERS

These rulers are designed for modellers to easily mark out the spacing of rivets on a model, rather than having to estimate using a normal ruler that is only marked every half-millimetre at best.

First, print out the rulers on a sheet of A4 paper.

**Ensure that they are printed at 100% size** and are not reduced or enlarged to fit the paper or the printer's margins! They will be inaccurate when not printed at 100% size.

To use the rulers, follow these steps:

1. Draw a pencil line on the model where the line of rivets is to go.
2. Measure the distance between the centres of the first and the last rivet that are to go on on this line.
3. Count the number of rivets in the line, for example in a photograph of the real thing.
4. Subtract 1 from the number of rivets.

*If you don't deduct 1, you will end up with one rivet too many!*

5. Divide the distance by the number from the previous step, and round off to the nearest 0.05 mm.

6. Find the ruler corresponding to the number calculated in step 5 and fold the paper along the long line in the ruler.

If there is no ruler for the distance you need, you will usually be able to use another ruler: just skip some of the marks. For example, there is no ruler for 2.10 mm spacing, but the 1.05 mm one will do for this by using every second mark, and the same ruler can be used for 6.30 mm by using every sixth mark.

7. Place the folded ruler next to the line you drew on the model.
8. Make a pencil mark on the model for each line on the ruler.
9. Enjoy sticking tiny rivets at every point of the line where a mark crosses it.

## RIVET SPACING ROSES

Like the rulers, the roses are designed to make it easy to space rivets around a circular object. These must also be printed out before use.

To use them, follow these steps:

1. Count the number of rivets around the object.
2. Select the rose for that number of rivets.

**Bold** numbers indicate the number of thick lines, non-bold numbers the total number of lines.

3. Place the part in the centre of the rose.

The circles are there to help align the part: check by eye that the part seems to have an equal amount of space all around compared to the circle that it can just fit inside of.

4. Make a mark on the part at each line.

As with the rulers, you can use roses for numbers not included. For example, to place five rivets you can use the “**10** 20” rose by skipping every other, thick line (and ignoring the thin ones, of course).

1.00



1.05



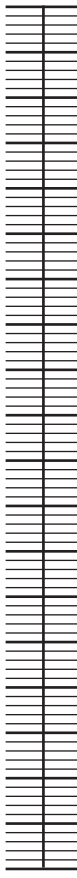
1.10



1.15



1.20



1.25



1.30



1.35



1.40



1.45



## RIVET SPACING RULERS

1.50



1.55



1.60



1.65



1.70



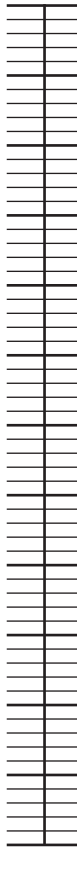
1.75



1.80



1.85

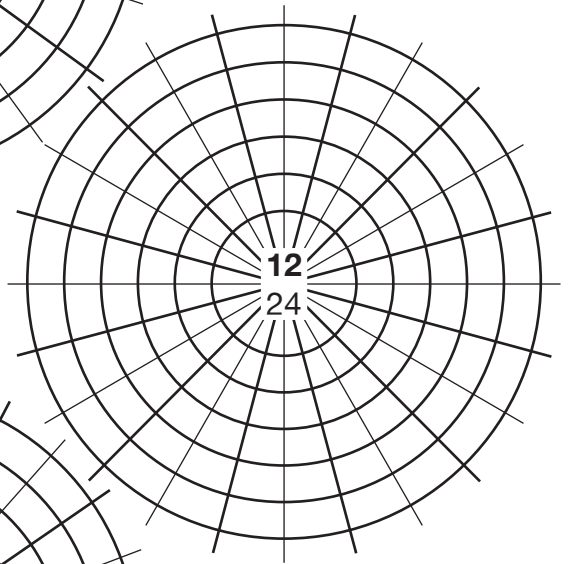
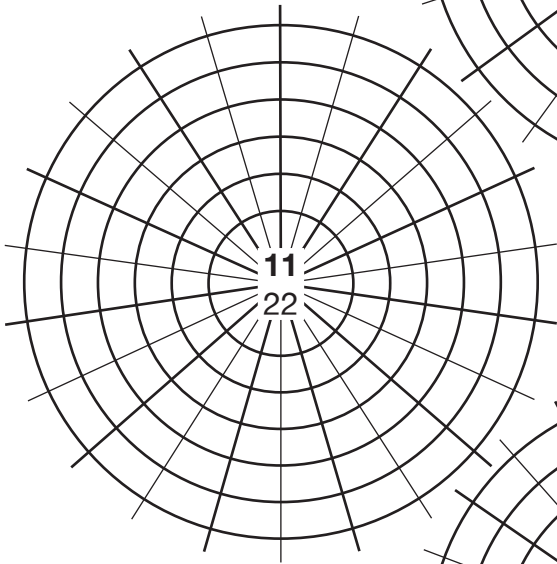
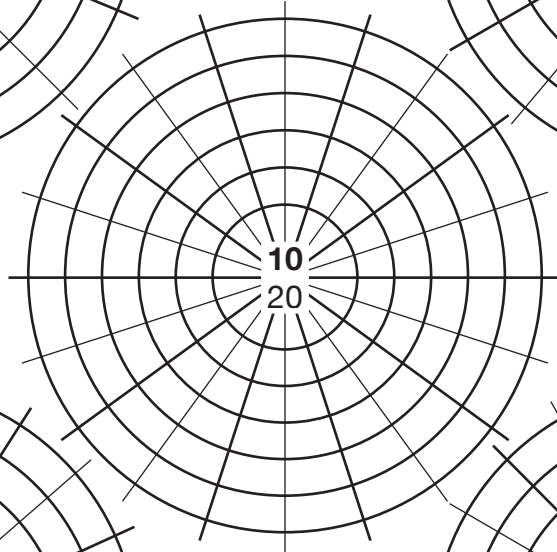
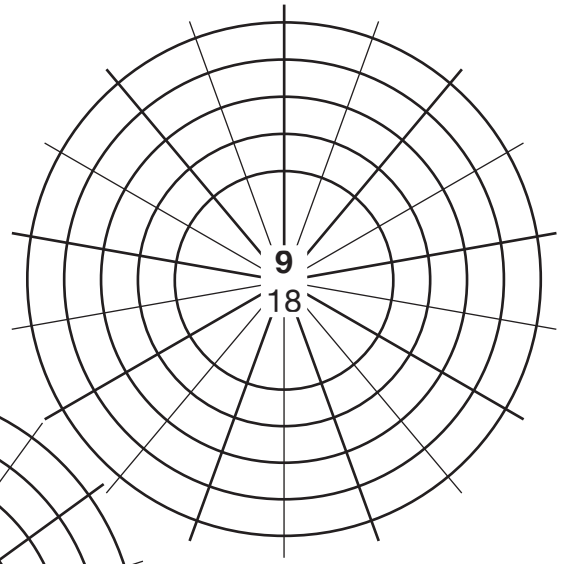
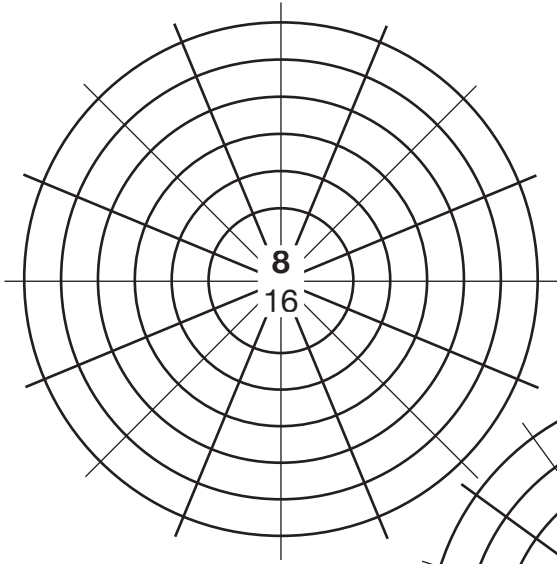


1.90



1.95





**RIVET  
SPACING  
ROSES**

