

SUNDIAL SPECIFICATIONS - GUIDLINES

Location: Address where dial will be installed (required for the design calculations). The name of the town, village etc. can be engraved on the dial if required.

Lat & Lon: The latitude and longitude of the dial location. I can work these out from the OS Grid location (preferred) or the address if necessary. They can be engraved on the dial if required, e.g. around the edge.

Dial Type: e.g. Horizontal, Vertical South, Vertical Declining, Portable etc.

Dial Size: Max dimension of the dial, typically 10", 12" (or metric equivalent). Largest available for an engraved brass dial is 18" unless manufacture is contracted out.

Dial shape: Usually circular, square or octagonal. Others shapes are possible.

Material and Finish: Standard is Marine Brass. Bronze is possible at extra cost and extended delivery times. A satin finish is usually provided. Mirror-polishing is possible for presentation purposes but will not show a shadow until it has become weathered. Brass/bronze dials can also be artificially patinated (at a small extra cost) to simulate natural verdigris. For special cases (usually very large dials) other materials such as aluminium, vitreous enamel, GRP etc. can be used.

Style: A brief description of the style that is required, e.g.: traditional 18th century, modern, scientific, Victorian, Late Tudor, etc. Supply a sketch for unusual requirements.

Numerals: The main numerals can be either Roman (IV, XII etc.) or Arabic (4, 12). They can be oriented to be read from the inside or the outside of the dial. The **chapter ring** shape (enclosing all the numerals) is typically circular but can be square or octagonal on appropriately-shaped dials. The smallest **time interval** indicated is usually 5-minutes for 10" or smaller dials. It can be two or even one minute for 12" and larger dials.

Time Markings: Sundials traditionally indicate Local Solar Time, putting local noon (12 o'clock) in line with the gnomon and facing due north. The time markings can be slipped 1 hour so that the dials shows British Summer Time. It is also possible to calculate the lines so that they indicate time on a Standard Meridian (e.g. Greenwich) rather than Local Time. This allows for the effect of the local longitude.

Gnomon: The standard gnomon (shadow-casting part of the dial) is a solid plate with a curved, semi-triangular shape and buttressed at the base. Variations (at extra cost) can be to pierce the plate with scrollwork or with a monogram. If the dial has declination lines (see below), the gnomon will require a **nodus**, usually in the form of a cylindrical cross-piece.

Maker's name on dial? Optional, but adds to the long-term value of the dial as an heirloom and indicates that this is a hand-made item. Various formats (e.g. J. Davis fecit) are possible.

Year: The year of manufacture is commonly shown on a dial, e.g. 2003 or Anno Domini MMIII

Engraving fill colour: Traditional is black. White shows the strongest contrast when the brass weathers and hence is most legible. Most other colours are possible, though in a multi-colour scheme different colours need to be separated by at least 1mm. Coats of arms and other artwork look good in colour.

Fixing holes: The dial can be left undrilled for fixing with, for example, silicone or it can be drilled for fixing screws. Special flush-fitting brass security fixings can be incorporated at extra cost.

Users' manual: Supplied as standard. Extra wording, dedications, etc. can be incorporated if desired (e.g. "This dial was commissioned by F. Bloggs to commemorate the wedding of his grand-daughter on"). It is usual to give the dial a name, normally its location or owner (e.g. "The Smith Dial").

Features: A large number of extra design features can be incorporated. A **compass rose** is traditional in the middle of the dial. Arrows can be added showing the direction and distances to other locations, e.g. to a place of birth. The **Equation of Time** ring (showing the difference between sundial time and Mean Time throughout the year) was usually found on high quality dials in the 18th and 19th centuries used for setting longcase clocks. **Declination lines** are curved lines across the dial face which show the path of the shadow of the nodus on specified days of the year (i.e. they are date lines). The dates chosen can be birthdays, anniversaries etc. or the solstices and equinoxes, or the zodiac signs.

Proprietor: Dr J R Davis

File: Dial specification sheet 2.doc

Depending on the dates chosen, up to around 8 lines are possible before the dial looks too cluttered. A label or inscription is placed against each line. **Custom artwork** can include Coats of Arms, bells, flowers or other motifs. A sketch or drawing should be supplied. **Mottoes** are common on Victorian dials. A wide variety of examples, in Latin and in English, are available or you can select your own.

Fonts: The fonts used for any of the engraving can be virtually anything available in Microsoft Word, or some specialist historical ones mimicking individual 17th and 18th century styles. This page is in Times New Roman which is common but effective.

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