Differences between MEANGEN-17.1 and MEANGEN-17.2

The main difference is that the "STAGEN.DAT" file written by MEANGEN-17.2 has the values of gas constant, RGAS, and specific heat ratio, GAMMA, as the first line of data. This can then be read by STAGEN-17.2.

The file written by MEANGEN-17.1 does not include RGAS and GAMMA as these are set by default in STAGEN-17.1 . The file can be read by STAGEN-17.1 but the program should be edited to change the defaults values of RGAS and GAMMA if necessary.

Other changes does not affect the input or output but include making an estimate of the mean height density, as opposed to the mean stream surface density, for working out the volume flow. This should give a better estimate of the annulus area.

MEANGEN-17.4 added on 3/10/2017.

A new version MEANGEN-17.4 has been added. This has additions to include a blockage factor, which is sometimes used in compressors to allow for the blockage due to the growth of the annulus boundary layers. It also allows the amount of blade twist to be scaled from the free vortex value so that untwisted or over-twisted blades can be generated. In addition the blade sections can be individually rotated by an amount specified in the input data, the actual rotation is performed in STAGEN.

 Because of these additions previous MEANGEN.IN data sets are not quite compatible with version 14.4 although they can easily be updated. Three new data sets for the new version have been added to the sample data sets provided.