

# PIPE SCALE DETAILS

FINAL

# MANDER ORGANS

**JOB: CULHAM PRIVATE CHAPEL**

**PITCH: A 440 @ °C**

**DEPARTMENT: Manual**

**DATE: 5<sup>th</sup> November 2014**

**TUNING METHOD: Cone & Slot**

**PRESSURE: 75mm**

**INITIALS: JPM**

**TEMPERAMENT: Kellner**

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	GG & AA	C <sup>1</sup>	C <sup>13</sup>	C <sup>25</sup>	C <sup>37</sup>	C <sup>49</sup>	A <sup>58</sup>	Remarks
1	Open Diapason	8	7-58	75%	none	4	From Bourdon	F#=9 8	76	45	27	16	11	1-6 from St. Diapason + helpers. Some fronts
1a	Open Diapason helpers 1-6	4	1-6	56%	1-6	4		C=68 F=55						No helpers for GG & AA
2	Stopped Diapason	8	1-58	Pine?			From Bourdon	F#=72.5x 57.5	57.5 x 46	36.5 x 29	23 x 18	14.5 x 11.5	12 x 9.5	Stopped Wood Scale No. 45 First six pipes 2 notes larger as per Stopped Wood scale 43 (see below)
3	Principal	4	GG, AA then 1-58	56%	GG & AA then 1-12	4	90 / 83	74	44	26	15.5	9.5	7	
4	Chimney Flute	4	1-58	35%	1-36	4	76 / 71	65	43	29	19	12.5	10	13-36 internal chimneys $\frac{1}{5}$ Ø. Length 1.5 x Ø. Domed canisters. 37-56 upper Ø $\frac{1}{2}$ scale
5	Twelfth	2 $\frac{2}{3}$	GG, AA then 1-58	56%	1-12	4	60 / 56	50	30	18	11	6.5	4.5	
6	Fifteenth	2	GG, AA then 1-58	56%	none	4	51 / 47	42	25	15	9	5.5	4	
7	Tierce	1 $\frac{3}{5}$	GG, AA then 1-58	56%	none	4	40 / 37	33	20	12.5	8	5	4	
8	Trumpet	8	GG, AA then 1-58				108 / 102	95	67	50	41	35	32	Some half-length. Shallots NPM Scale no. 13

**DEPARTMENT:** Pedal Organ

**PRESSURE:** 75mm

**JOB:** Culham

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	C <sup>1</sup>	C <sup>13</sup>	C <sup>25</sup>	F <sup>30</sup>	Remarks
9	Bourdon	16	1-30	Pine			150x 120	95x 75.5	60x 47.5	49.5x 39.5	Stopped Wood Scale 32 Some bearded if required

Stopped Diapason 1-6

C = 99 x 78.5

C# = 95 x 75.5

D = 91.5 x 73

D# = 88 x 70

E = 84.5 x 67.5

F = 81.5 x 65

The client has now agreed to include a short octave for this organ, which will be interesting. Most of you know what a short octave is, but just so that we are all on the same song sheet, in this instance it means adding a GG and AA below bottom C of the manual compass. These are played by a key below bottom C where a BB might be (GG) and C# (AA). The C# key will be a split key, the back half playing AA and the front half playing C#. In order to save space, the GG and AA of the 8ft manual stops will be derived from the Bourdon equivalent notes and there will be no helpers for the Open Diapason for those two notes, again to save space.

In order to avoid confusion, I have stuck with the normal numbering for the pipes, starting with 1 for bottom C and calling the notes below GG and AA, so the numbering runs GG, AA, 1-58. I hope that will avoid confusion which might arise by numbering GG 1, which would make bottom C 3 and tenor C 15, which might cause confusion.

I have also changed the scales of the Stopped Diapason pipes 1-6, which also have to serve for the Open Diapason, from 4 notes larger to only 2 notes larger. This is partly to save space, but also because I discovered that by making them four notes larger, they would become larger than the equivalent Bourdon pipes, which is a bit inappropriate.

We know that some of the Trumpet pipes will have to be half-length. Geoff is to advise how many. I would hope that there is room to make the Trumpet GG and AA half-length too, rather than quarter length. Again, Geoff to advise please. We will need GG and AA shallots of course.

Although this is called "Final" I would welcome any comments from anybody on the scales, or anything else which might occur to anybody.