	A	В	С	D	Е	F	G
1	I. Bocal		Original bocal; AdlerFG1 no bocal				
3	dia reed end bocal string length (0, 1)		inside diameter of reed end of bocal length of bocal inserted into receiver				
4	metal bocal length top (0, 1)		meas. along top of bocal				
5	metal bocal length bot (0, 1)		meas. along bottom of bocal				
6 7	dia wj end		inside diameter of bocal				
8	bocal logic	2	if bocal logic = 0 => bocal is choke; if bocal logic = 1 =>choke in wing joint calc; if bocal logic = 2 =>	no bocal			
9							
10 11							
12							
13 14	II. Wing Joint Lengths choke bore dia.	10.2	bocal receiver: AdlerFG1 No logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginning of bore at bottom or				
15	receiver length (1, 0) (formally choke length)	52	logic 1; bore diameter of choke, logic 0, either diameter bocal bottom of beginning of bore at bottom of logic 1; length of choke from top of wing joint; logic 0; length of receiver (same as string length)	receivei			
16	wing joint length	511	total wing joint length, including tenon and socket				
17	tenon length	49	tenon length				
19	wj f2	219	dist top of wing to where tone hole enters bore [not at the center of the tone hole]				
	wj e	292					
21 22	wj d	342	AdlerFG1 vrfd; f and d tone holes at fairly steep angle				
23	Bore dia. Bottom of wing joint		AdlerFG1 verified small; need to Average, no				
24 25	Bore dia. top of boot joint small side	16 25.1					
26	Bore dia. top of boot joint large side	23.1					
27	III. Boot Lengths						
28 29	bj logic bj c	1 81	logic=> if bj logic = 0 => plug removed; if bj logic = 1 => plug cannot be removed verified; dist from top of boot to where topmost tone hole enter bore [not at center of tone hole]				
30	bj b	154					
31	bj a	198	Adjusted and Methods and Adjusted				
33	bjstotal [Needed for both boot logics]	433	AdlerFG1 meas. With boot cap removed total length of boot, include socket, along the small bore side,				
34	bjltotal [Needed for both boot logics]	433	total length of boot, include socket, along large bore side				
35	plug small [Need for logic 0 only]	0	plug thickness, large bore side			_	
36 37	plug large [Need for logic 0 only]	0	plug thickness, small bore side				
38	boots [Needed for both boot logics]	386	hook length along s bore => bjs-septum length = boot - septum <= calc the septum				
39 40	bootl [Needed for both boot logics]	386	hook length along I bore => bjl-septum length = boot - septum <= calc the septum				
41	boots bottom [Needed for both boot logics]	22	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stick]				
42 43	bootl bottom [Needed for both boot logics]	22	use hook, dist of bore [same as boots bot except tenon depth will be different] 15 + 7=20				
44	extreme bore [Needed for logic 1 only]	41.8	Outside dia of plug [measured] = small bore dia + large bore dia + the septum width				
45 46	septum length exp [Need for logic 0 only]	0	dist. from very bottom of boot to septum [point between the large and small bore]				
47	septum length exp [Need for logic o only]	47	dist. From very bottom of boot to spetum [boilt between the large and sman bore]	do not imput value			
48	septum length - do not imput value	47	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum calc	do not imput value			
49 50	sbore dia sep* [Needed for both boot logics]	18.6	septum small bore dia [assume = Ibore dia sep]				
51	Ibore dia sep* [Needed for both boot logics]	19.4	septum large bore dia [assume = sbore dia sep] [mesure if cork can be removed; for Logic 0]				
52 53	sep width exp [Need for logic 0 only] sep width calc - do not imput value	3.8	septum width; direct measurement if remove plug septum width; calc. => extreme bore - sbore - lbore	do not imput value			
54	sep width - do not imput value	3.8	if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width = sep width calc	do not imput value			
55	L: -	336	dish forms have of heart (seed only to such one C halo and one have forms have heart halo?				
56 57	bj g bj f1	142	dist from top of boot (socket) to where G hole enters bore [not at cent of tone hole] dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone hole]				
58							
59 60							
61							
62 63	IV. Tone Hole Diameters						
64	f2	6.5					
65 66	e d	5.4 5.5					
67							
68	C	8.6					
69 70	a	7.4 6.1					
71	g	9.6					
72 73	T1	10.1	AdlerFG1 large tone holes on long joint				
74	e1	13.4	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]				
75 76	d1	8.7 15	10.1; d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater] 15; c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]				
77		13	13, of tone note dia, on long joint fried to average N3 dild EW dids, N3 usually greater				
78 79							
80							
81	M. Taras Halla Br						
82 83	V. Tone Hole Depths f2	37	AdlerFG1, f and d tone holes drilled at extreme angle				
84	e	27.5					
85 86	d	33.5					
87	С	32	AdlerFG1 c tone hole not drilledinto center of bore				
88 89	b	29 31.5	AdlerFG1 a tone hole not drilledinto center of bore				
90	g	17	meas along bot tone hole wall [north wall, toward reed,tone hole usually at angle]				
91 92	f1	29	AdlerFG1 vrfd, drilled at extreme angle down towart boot; meas along east side tone hole wall				
93	e1	7	e1 tone hole depth;meas east/west with deapth gauge [at center, or shortest dist]				
94	d1	8	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]				
95 96	c1	8.3	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]				
97							
98							
98 99 100							
98 99 100 101	VI. Long Joint	580	AdlerFG1 a table along long joint				
98 99 100 101 102 103		589 49.5 25	AdlerFG1 a table along long joint total length of long joint length bottom tenon on long joint [tenon going into boot joint] long joint bottom tenon bore diameter [tenon going into boot joint]				

100 1.00 2	_						-	
100 100	105	A	B	C	D	E	F	G
10.00 distance	100				1			ļ
10.00 distance					-	1	-	-
100 ct desease					 	 	-	-
11 12 13 14 15 15 15 15 15 15 15				AdlerFG1 verified: dist long joint tenon to c1 [from hot of tenon to where tone hole enters hore]		!		
113		CI distance	403	Address of vermed, distributed in terror to experience and more enters bore;				
13 13 13 14 15 15 15 15 15 15 15								
11 11 12 13 14 15 15 15 15 15 15 15								
131 131 132 133 134	113							
13.2 1.0	114							
12 12 13 14 15 16 16 17 17 18 18 18 18 18 18	115	VII. Bore diameters at Tone Holes						
14.2	116	f2	12.1					
11	117	e						
120 17.4 17.4 17.5 1		d	14.2					
17.4								
17.6 20.1 17.6 20.1 17.6 20.1		C						
20.1 20.1	121	D						
12 12 13 13 13 13 14 15 15 15 15 15 15 15	122	a				-		
128		g f1						
125 1		11	23.1			—	 	-
122 11 28.7		e1	25.5	e1 tone hole hore diameter on long joint		<u> </u>		
120 120		 d1		d1 tone hole bore diameter on long joint	1			
128		c1						
133 133 134 135				and the second of the second o	1			
130 Will. Self	130							
133 VIII. Bell	131							
132 MIL Bell								
135 bet logic 1	133							
135 bet length (0, 1, 2)					L	1	-	
137 Bell bot borre (0, 1, 2) 34				If bell_logic = 0 => normal conical bore; if bell_logic = 1 => inverted concial bore; if bell_logic = 2 =>	bell expansion			
		bell_lengtri (0, 1, 2)		AdjorEC1 verified: dia here at the bettem of hell [and with cocket]		1		
dia bore at max center of expansion		bell ton hore 0 (1 0 2)			 	+		-
140 Del Well (only for logic 2) Del Well (thickness), Just for David Del Del Dece expansion (only for logic 2) dist of Dobuton to maximum of expansion (including bell socket length, if bell logic=0 =>100) Del			JZ		 	1		
14] belt bote expansion (only for logic 2)					 	1		l
142 Dutside diameter of wood at expansion 2 24.5 bell socked length 24.5 bell socked len					1	1		
143 bell tenon (0, 1, 0, 2)	142	Outside diameter of wood at expansion		Just for David	1			l
1445 bell expansion length (only for logic 2)	143	bell_tenon (0, 1, 0, 2)	42.5					
145 belfig	144	bell_expansion_length (only for logic 2)						
148 X. PITCH	145		62					
148 IX. PITCH	146							
149 pitch		TV PTTOU			-	1	-	
150 Initial frequency 2 Frequency increment parameter 1.02 1			420	in the bishesical citeb of the because and in the little of the because in the little of the bishesical citeb of the because and the little of the because of the because of the bishesical citeb of the because of the bishesical citeb of the because of the bishesical citeb of the bishesical cite	1	-	-	-
151 Delta frequency 2 frequency increment parameter					-	1	-	-
152 Number of frequencies 60					1	-	<u> </u>	
1.55 Frequency adjust 1.05 Frequency adjustment parameter								
154 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151 155 151					1	 		
155 156	154	X. Title		age and a second a		1		
Notes on long joint bore: AdlerFG1, good Notes on boot joint bore: AdlerFG1 good Notes on wing joint bore: AdlerFG1 good Notes on wing joint bore: AdlerFG1, good 159 XI. Bore Diameter Locations Notes on wing joint bore: AdlerFG1, good 19 Number of diameters 10.2 Initial bore diameter (do not include in line 160 counting) 161 Bell Bore 10.2. Initial bore diameter (do not include in line 160 counting) 162 34.0mm dia. at socket 0 dist1; measured from the bottom of the wing joint: 10mm 163 33.0mm rod 80mm from socket 420 dist2; measured from the bottom of the wing joint: 11mm 164 33.5mm rod 100mm from socket 300 dist3; measured from the bottom of the wing joint: 12mm 165 32.0mm dia. at bell end 265 dist4; measured from the bottom of the wing joint: 13mm 166 192 dist5; measured from the bottom of the wing joint: 14mm 167 0 dist6; measured from the bottom of the wing joint: 15mm 168 0 dist7; measured from the bottom of the wing joint: 15mm 169 98 dist8; measured from the top of the bootjoint: -small bore side- 16mm 170 top boot small 16 dist9; measured from the top of the bootjoint - small bore side- 17mm 170 top boot large 25.1 dist1; measured from the top of the bootjoint - small bore side- 18mm 171 dist1; measured from the top of the bootjoint - small bore side- 20mm 172 dist1; measured from the top of the bootjoint - large bore side- 20mm 173 dist1; measured from the top of the bootjoint - large bore side- 20mm 174 200 dist11; measured from the top of the bootjoint - large bore side- 22mm 175 dist14; measured from the top of the bootjoint - large bore side- 22mm 176 dist14; measured from the top of the bootjoint - large bore side- 22mm 177 dist16; measured from the top of the bootjoint - large bore side- 22mm 178 dist18; measured from the top of the long joint- 28mm 179 dist18; measured from the top of the long joint- 28mm 180 dist19; measured from the top of the long joint- 28mm 181 dist20; measured from the top of the long joint- 28mm 182 dist21; measured from the top of the	155	title		Bassoon Calculation: AdlerFG1-O-BrusMIMIDK0018-Wg1-WOB-DNM				
Notes on boot joint bore: AdlerFG1 good	156			•				
Notes on wing joint bore-AdlerFG1, good Number of diameters 19	157							
150 Number of diameters 10.2 Initial bore diameter (do not include in line 160 counting)	158							
161 34 162 34 34 34 34 34 34 34 3		XI. Bore Diameter Locations	10	Notes on wing joint bore:AdlerFG1, good	-	1		
162 34.0mm dia. at socket 0 dist1; measured from the bottom of the wing joint- 10mm 163 33mm rod 80mm from socket 420 dist2; measured from the bottom of the wing joint- 11mm 165 32.0mm dia.at bell end 265 dist4; measured from the bottom of the wing joint- 12mm 166 192 dist5; measured from the bottom of the wing joint- 13mm 166 192 dist5; measured from the bottom of the wing joint- 14mm 167 168 169		Poll Page			 	-	-	
163 33mm rod 80mm from socket 420 dist2; measured from the bottom of the wing joint- 11mm						I		-
164 33.5mm rod 100mm from socket 300 dist3; measured from the bottom of the wing joint- 12mm 165 32.0mm dia.at bell end 265 dist4; measured from the bottom of the wing joint- 13mm 167 168 169 dist5; measured from the bottom of the wing joint- 15mm 168 169 dist5; measured from the bottom of the wing joint- 15mm 168 169 dist6; measured from the top the bootjoint - small bore side- 16mm 169 dist9; measured from the top of the bootjoint - small bore side- 17mm 169 dist9; measured from the top of the bootjoint - small bore side- 17mm 169 dist9; measured from the top of the bootjoint - small bore side- 18mm 160 dist10; measured from the top of the bootjoint - small bore side- 18mm 160 dist10; measured from the top of the bootjoint - large bore side- 19mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist9; measured from the top of the bootjoint - large bore side- 20mm 160 dist10; measured from the top of the bootjoint - large bore side- 23mm 175 dist10; measured from the top of the bootjoint - large bore side- 23mm 176 dist10; measured from the top of the bootjoint - large bore side- 23mm 177 dist10; measured from the top of the long joint- 24mm 178 dist10; measured from the top of the long joint- 25mm 178 dist10; measured from the top of the long joint- 27mm 178 dist10; measured from the top of the long joint- 27mm 178 dist10; measured from the top of the long joint- 28mm 178 dist10; measured from the top of the long joint- 28mm 179 dist10; measured from the top of the long joint- 28mm 179 dist10; measured from the top of the long joint- 29mm 178 dist10; measured from					 	!		1
155 32.0mm dia.at bell end 265 dist4; measured from the bottom of the wing joint- 13mm Bottom wing jt 15.4								1
192 dist5; measured from the bottom of the wing joint- 14mm Bottom wing jt 15.4 168	165							1
167				dist5; measured from the bottom of the wing joint- 14mm	1			1
168 0 dist7; measured from the top of the bootjoint - small bore side- 16mm top boot small 16 170 170 180 dist8; measured from the top of the bootjoint - small bore side- 17mm top boot large 25.1 170 240 dist9; measured from the top of the bootjoint - small bore side- 18mm top boot large 25.1 170 240 dist10; measured from the top of the bootjoint - large bore side- 18mm top step side- 18mm top s	167		0	dist6; measured from the bottom of the wing joint- 15mm	Bottom wing jt	15.4		1
169 98 dist8; measured from the top of the bootjoint - small bore side- 17mm top boot large 25.1				dist7; measured from the top of the bootjoint - small bore side- 16mm		16		2
171 0 dist10; measured from the top of the bootjoint - large bore side- 19mm sbore dia sep 18.6 172 358 dist11; measured from the top of the bootjoint - large bore side- 20mm libore dia sep 19.4 173 280 dist12; measured from the top of the bootjoint - large bore side- 21mm Hook Length 386 174 280 dist13; measured from the top of the bootjoint - large bore side- 22mm Hook Length 386 175 164 dist14; measured from the top of the bootjoint - large bore side- 22mm Hook Length 280 176 110 dist15; measured from the top of the bootjoint - large bore side- 23mm Hook Length 280 177 560 dist16; measured from the top of the long joint- 24mm Hook Length 280 178 490 dist15; measured from the top of the long joint- 25mm Hook Length 280 180 360 dist18; measured from the top of the long joint- 27mm Hook Length 280 181 310 dist20; measured from the top of the long joint- 29mm Hook Length 280				dist8; measured from the top of the bootjoint - small bore side- 17mm		25.1		2
172 358 dist11; measured from the top of the bootjoint - large bore side- 20mm libore dia sep 19.4 173 280 dist12; measured from the top of the bootjoint - large bore side- 21mm Hook Length 386 174 205 dist13; measured from the top of the bootjoint - large bore side- 22mm Hook Length 386 175 164 dist14; measured from the top of the bootjoint - large bore side- 23mm Libore 164 dist14; measured from the top of the long joint - 24mm Libore 177 S60 dist15; measured from the top of the long joint - 25mm Libore 25 178 490 dist17; measured from the top of the long joint - 25mm Libore 25 179 420 dist18; measured from the top of the long joint - 27mm Libore 25 180 360 360 dist19; measured from the top of the long joint - 27mm Libore 25 181 310 dist20; measured from the top of the long joint - 29mm Libore 25 182 250 dist21; measured from the top of the long joint - 29mm Libore 25 183 200 dist22; measured from the top of the long joint - 30mm Libore 25 184 250 dist22; measured from the top of the long joint - 30mm Libore 25 185 250 dist22; measured from the top of the long joint - 30mm Libore 25 184 250 dist22; measured from the top of the long joint - 30mm Libore 25 185 250 dist22; measured from the top of the long joint - 30mm Libore 25 186 250 dist22; measured from the top of the long joint - 30mm Libore 25 185 250 dist22; measured from the top of the long joint - 30mm Libore 25 186 250 dist22; measured from the top of the long joint - 30mm Libore 25 187 250 dist22; measured from the top of the long joint - 30mm Libore 25 188 250 dist22; measured from the top of the long joint - 30mm Libore 25 189 250 dist22; measured from the top of the long joint - 30mm Libore 25 250 dist22; measured from the top of the long joint - 30mm Libore 25 250 dist22; measured								2
173 280 dist12; measured from the top of the bootjoint - large bore side- 21mm Hook Length 386 174 205 dist13; measured from the top of the bootjoint - large bore side- 22mm 175 164 dist14; measured from the top of the bootjoint - large bore side- 23mm 176 110 dist15; measured from the top of the long joint- 24mm 177 560 dist16; measured from the top of the long joint- 25mm 178 490 dist17; measured from the top of the long joint- 26mm 179 420 dist18; measured from the top of the long joint- 27mm 180 360 dist19; measured from the top of the long joint- 28mm 181 310 dist20; measured from the top of the long joint- 29mm 182 250 dist21; measured from the top of the long joint- 30mm 183 200 dist22; measured from the top of the long joint- 31mm							<u> </u>	3
174 205 dist13; measured from the top of the bootjoint - large bore side- 22mm				dist11; measured from the top of the bootjoint - large bore side- 20mm	ipore dia sep		-	3
175	174				HUOK Length	386	-	3
110 dist15; measured from the top of the long joint- 24mm 1j bot_bore 25 177	175				<u> </u>	1	-	3
177 560 dist16; measured from the top of the long joint- 25mm 178 490 dist17; measured from the top of the long joint- 26mm 179 420 dist18; measured from the top of the long joint- 27mm 180 360 dist19; measured from the top of the long joint- 28mm 181 310 dist20; measured from the top of the long joint- 29mm 182 250 dist21; measured from the top of the long joint- 30mm 183 200 dist22; measured from the top of the long joint- 31mm					li hot hore	25		3
178 490 dist17; measured from the top of the long joint- 26mm 9 179 420 dist18; measured from the top of the long joint- 27mm 9 180 360 dist19; measured from the top of the long joint- 28mm 9 181 310 dist20; measured from the top of the long joint- 29mm 9 182 250 dist21; measured from the top of the long joint- 30mm 9 183 200 dist22; measured from the top of the long joint- 31mm 9					ij_bot_bore	23	 	3
179 420 dist18; measured from the top of the long joint- 27mm 180 360 dist19; measured from the top of the long joint- 28mm 50 181 310 dist20; measured from the top of the long joint- 29mm 50 182 250 dist21; measured from the top of the long joint- 30mm 50 183 200 dist22; measured from the top of the long joint- 31mm 60	178					!		4
180 360 dist19; measured from the top of the long joint- 28mm 181 310 dist20; measured from the top of the long joint- 29mm 182 250 dist21; measured from the top of the long joint- 30mm 183 200 dist22; measured from the top of the long joint- 31mm				dist18: measured from the top of the long joint- 27mm	1	<u> </u>		4
181 310 dist20; measured from the top of the long joint- 29mm 9 182 250 dist21; measured from the top of the long joint- 30mm 9 183 200 dist22; measured from the top of the long joint- 31mm 9								4
182 250 dist21; measured from the top of the long joint- 30mm				dist20; measured from the top of the long joint- 29mm				4
183 200 dist22; measured from the top of the long joint- 31mm	182					1		4
	183			dist22; measured from the top of the long joint- 31mm				4
	184				lj top bore	34.3		4