

Flue Pipes

HAUPTWERK

	C	e ⁰	e ¹	e ²	e ³	e ⁴
Praestant 16'						
<i>C-C Wood Haskell (see Pedal 16')</i>						
Diameter	254	150	84	49	31	17
Cut-up	51	31	21.7	11.3	6.9	4.5
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	8.5	5.7	3.5	2.3	1.7	1.1
Material	97% Lead					
Octave 8'						
Diameter	155	90	50	31	20	9
Cut-up	30	21.3	11.5	6.8	4.6	2.3
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	5.9	3.7	2.3	1.7	1.2	0.7
Material	97% Lead					
Rohrflöte 8'						
Diameter	122	76	51	33	22	16
Cut-up	40.2	24.3	16.3	9.2	4.7	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Rohr Diameter	-	16	12	9	7	5
Rohr Length	-	110	58	31	16	9
Languid Thickness	4.7	3.2	2.3	1.75	1.3	1
Material	97% Lead					
Salicional 8'						
Diameter	120	69	43	26	15	9
Cut-up	25.8	14.9	9	5.8	3.2	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	4.6	3	2.1	1.5	1	0.7
Toe Hole	-	6	4.5	3.2	2.2	-
Material	97% Lead					
Octave 4'						
Diameter	83	48	28	18	10.5	5.5
Cut-up	20.1	11	6.8	4.2	2.7	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	3.5	2.2	1.6	1.1	0.75	0.55
Material	97% Lead					
Spitzflöte 4'						
Lower Diameter	85	58	40	27	18	12
Upper Diameter	50	32	21	13	8	7
Cut-up	19.8	12.8	8.1	4.9	3.3	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	3.5	2.4	2	1.5	1.1	0.8
Material	97% Lead					
Quinte 2 2/3'						
Diameter	58	34	20	10.5	6.5	4.5
Cut-up	14	7.9	6.4	3.1	1.8	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.4	1.8	1.2	0.7	0.6	0.5
Material	97% Lead					

Flue Pipes

HAUPTWERK (continued)

Superoctave 2'	C	c⁰	c¹	c²	c³	c⁴
Diameter	47	27	17	10	6	3.7
Cut-up	10.6	6.2	4	2.5	1.4	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.2	1.55	1.1	0.7	0.55	0.45
Material	97% Lead					
Mixture 1 1/3' V	C	c⁰	c¹	c²	c³	c⁴
<i>Scales based on 2'</i>						
Diameter	46.3	25.3	14.8	9.7	6.2	4
Cut-up	10.6	6.2	4	2.5	1.4	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.2	1.45	1	0.7	0.55	0.5
Material	97% Lead					
Mixture 1' IV	C	c⁰	c¹	c²	c³	c⁴
<i>Scales based on 2'</i>						
Diameter	43	23.5	13.5	9	5.7	3.8
Cut-up	10.6	6.2	4	2.5	1.4	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.1	1.35	1.1	0.7	0.55	0.45
Material	97% Lead					
Cornet V	c¹	c²	c³	c⁴		
8'	Diameter	51	33	22	16	
	Cut-up	16	8.8	5.5	-	
	Mouth Width	1/4	1/4	1/4	1/4	
	Rohr Diameter	12	9	7	5	
	Rohr Length	58	31	16	9	
	Languid Thickness	2.3	1.75	1.3	1	
	Material	97% Lead				
4'	Diameter	35	23.2	15.8	9	
	Cut-up	7.8	4.9	3.2	-	
	Mouth Width	1/4	1/4	1/4	1/4	
	Languid Thickness	1.8	1.35	1	0.7	
	Material	97% Lead				
2 2/3'	Diameter	28.7	19.6	11.5	7.1	
	Cut-up	6	4.3	2.7	-	
	Mouth Width	1/4	1/4	1/4	1/4	
	Languid Thickness	1.6	1.2	0.75	0.6	
	Material	97% Lead				
2'	Diameter	24.6	17.6	10.8	7	
	Cut-up	4.9	3.3	2	-	
	Mouth Width	1/4	1/4	1/4	1/4	
	Languid Thickness	1.4	1.1	0.7	0.6	
	Material	97% Lead				
1 3/5'	Diameter	20.3	14	8.4	5.3	
	Cut-up	3.8	2.8	1.7	-	
	Mouth Width	1/4	1/4	1/4	1/4	
	Languid Thickness	1.2	0.9	0.65	0.5	
	Material	97% Lead				

Flue Pipes

OBERWERK

Praestant 8'	C	e⁰	e¹	e²	e³	e⁴
Diameter	147	85	47	29	17	8
Cut-up	30.5	21	11.6	7	4.5	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	5.7	3.5	2.15	1.65	1.1	0.6
Material	97% Lead					
Suavial 8'	C	e⁰	e¹	e²	e³	e⁴
Diameter	-	-	47	29	17	8
Cut-up	-	-	11.6	7	4.5	-
Mouth Width	-	-	1/4	1/4	1/4	1/4
Languid Thickness	-	-	2.2	1.65	1.1	0.6
Material	97% Lead					
Gedeckt 8'	C	e⁰	e¹	e²	e³	e⁴
Diameter	115	76	50	32	20	15
Cut-up	37.2	22	15.1	8.5	4.3	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	4.4	3.2	2.3	1.7	1.2	1
Material	97% Lead					
Octave 4'	C	e⁰	e¹	e²	e³	e⁴
Diameter	79	45	27	16.5	10.5	5.5
Cut-up	20.5	11.8	7.0	4	2.8	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	3.4	2.15	1.55	1.1	0.7	0.5
Material	97% Lead					
Rohrflöte 4'	C	e⁰	e¹	e²	e³	<i>Tapered open from e³ as in HW 4'</i>
Diameter	84	56	33	21	14	-
Cut-up	26	16	9.8	5.4	3.1	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	-
Rohr Diameter	14	10.5	8.7	6.3	4.7	-
Rohr Length	95	60	35	20	14	-
Languid Thickness	3.5	2.4	1.75	1.2	1	-
Material	97% Lead					
Octave 2'	C	e⁰	e¹	e²	e³	e⁴
Diameter	44	25.5	16	10	6	3.7
Cut-up	11.6	7	4.5	2.9	1.8	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.15	1.45	1	0.7	0.55	0.45
Material	97% Lead					
Waldflöte 2'	C	e⁰	e¹	e²	e³	e⁴
Diameter	54	35	22	15	10	7
Cut-up	11.2	8	4.8	2.8	1.9	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.4	1.8	1.3	1	0.7	0.6
Material	97% Lead					

Flue Pipes

OBERWERK (continued)

Sequialtera II		C	c⁰	c¹	c²	c³	c⁴
2 2/3'	Diameter	59	33	19	12	7.4	4.2
	Cut-up	14.7	8.9	5.6	3.3	2	-
	Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
	Languid Thickness	2.6	1.7	1.2	0.8	0.6	0.5
	Material	97% Lead					
1 3/5'	Diameter	38	21	13	8	4.9	3
	Cut-up	9.9	5.8	3.8	2.7	1.5	-
	Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
	Languid Thickness	1.9	1.2	0.85	0.6	0.5	0.45
	Material	97% Lead					
Quinte 1 1/3'		C	c⁰	c¹	c²	c³	c⁴
	Diameter	32	18	11.5	7.3	5.2	3.5
	Cut-up	8	4.9	3	2.1	1.2	-
	Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
	Languid Thickness	1.7	1.1	0.75	0.6	0.5	0.4
	Material	97% Lead					
Mixture 1' IV		C	c⁰	c¹	c²	c³	c⁴
<i>Scales based on 2'</i>							
	Diameter	44	25.5	16	10	6	3.7
	Cut-up	11.5	6.5	4	2.8	1.6	-
	Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
	Languid Thickness	2.15	1.45	1	0.7	0.55	0.45
	Material	97% Lead					

Flue Pipes

UNTERWERK

Bourdon 16'	C	c⁰	c¹	c²	c³	c⁴
Diameter	145x175	105	70	42	26	17
Cut-up	58	34	23	13.8	7.3	-
Mouth Width	145	1/4	1/4	1/4	1/4	1/4
Languid Thickness	-	4.1	3	2.1	1.5	1.1
Material	97% Lead					
Principal 8'	C	c⁰	c¹	c²	c³	c⁴
Diameter	158	92	51	32	20	9
Cut-up	31	19.3	11	6.5	4.2	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	6	3.8	2.3	1.7	1.2	0.7
Material	97% Lead					
Gamba 8'	C	c⁰	c¹	c²	c³	c⁴
Diameter	95	58	36	23	14	8
Cut-up	17.2	11.3	8.3	4.5	2.5	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	3.8	2.5	1.8	1.3	1	0.6
Material	97% Lead					
Toe Hole	10.5	7.5	4.7	3	2	-
Roller Beards	16.2	9.5	6.4	-	-	-
Celeste 8'	C	c⁰	c¹	c²	c³	c⁴
Diameter	-	49	31	19	12	7
Cut-up	-	11	8.5	5	3.1	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	-	2.3	1.65	1.2	0.8	0.6
Material	-	97% Lead				
Toe Hole	-	5.5	3.5	2.7	2	-
Roller Beards	-	9	6.4	6.4	-	-
Harmonic Flute 8'	C	c⁰	c¹	c²	c³	c⁴
				<i>Overblowing from c²</i>		
Diameter	130	73	55	40	27	15
Cut-up	31	16.2	11.1	9.5	6.8	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	5	3.2	2.4	2	1.5	1
Material	97% Lead					
Principal 4'	C	c⁰	c¹	c²	c³	c⁴
Diameter	84	49	29	18	10.5	6
Cut-up	19	11	7	4	2.9	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	3.5	2.3	1.65	1.1	0.7	0.55
Material	97% Lead					
Harmonic Flute 4'	C	c⁰	c¹	c²	c³	c⁴
			<i>Overblowing from c¹</i>			
Diameter	67	52	39	27	18	13
Cut-up	15.5	11	9.0	6	4	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.8	2.4	2	1.5	1.1	0.8
Material	97% Lead					

Flue Pipes

UNTERWERK (continued)

	C	c ⁰	c ¹	c ²	c ³	c ⁴
Nazard 2 2/3'						
Diameter	59	44	29	20	11.5	8
Cut-up	13.8	9.5	6.8	3.9	2.8	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.6	2.15	1.6	1.2	0.75	0.6
Material	97% Lead					
Octavin 2'						
	C	c ⁰	c ¹	c ²	c ³	c ⁴
		<i>Overblowing from c⁰</i>				
Diameter	49	35	22	14	9	6
Cut-up	11.8	9	4.8	3	2	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.3	1.8	1.3	1	0.7	0.55
Material	97% Lead					
Tierce 1 3/5'						
	C	c ⁰	c ¹	c ²	c ³	c ⁴
Diameter	46	29	20	14	8.5	4.8
Cut-up	9.8	6.1	4	3.1	2.2	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.15	1.65	1.2	1	0.6	0.5
Material	97% Lead					
Mixture V 2'						
<i>Scales based on 2'</i>	C	c ⁰	c ¹	c ²	c ³	c ⁴
Diameter	48	28	18	10	6	3.7
Cut-up	11	6.7	4.5	2.3	1.5	-
Mouth Width	1/4	1/4	1/4	1/4	1/4	1/4
Languid Thickness	2.2	1.55	1.1	0.7	0.55	0.45
Material	97% Lead					

Flue Pipes

PEDAL

Subbass 32'	C	c⁰		
Diameter	322 x 383	194 x 228		
Cut-up	150	84		
Wall Thickness	33	29		
Material	Sugar Pine / Douglas Fir			
Praestant 16'	C	c⁰		
<i>Wood Haskell</i>				
Diameter	200 x 251	126 x 158		
Cut-up	60	35		
Wall Thickness	20	16		
Material	Poplar			
Subbass 16'	C	c⁰	c¹	c²
Diameter	194 x 228	120 x 153	70 x 97	40 x 53
Cut-up	78	48	28	16
Wall Thickness	20	16	10	9
Material	Poplar			
Octave 8'	C	c⁰	c¹	c²
Diameter	155	93	53	32
Cut-up	30.5	21.2	11.3	-
Mouth Width	1/4	1/4	1/4	1/4
Languid Thickness	5.8	3.8	2.4	1.7
Material	97% Lead			
Gedeckt 8'	C	c⁰	c¹	c²
Diameter	117	78	50	33
Cut-up	39.2	24.8	15.5	-
Mouth Width	1/4	1/4	1/4	1/4
Languid Thickness	4.5	3.3	2.3	1.7
Material	97% Lead			
Octave 4'	C	c⁰	c¹	c²
Diameter	80	47	26	18
Cut-up	19	11.2	6.9	-
Mouth Width	1/4	1/4	1/4	1/4
Languid Thickness	3.4	2.2	1.5	1.1
Material	97% Lead			
Mixture V 2 2/3'	C	c⁰	c¹	c²
<i>Scales based on 2 2/3'</i>				
Diameter	60	35	22	12
Cut-up	14.5	8.3	5.2	-
Mouth Width	1/4	1/4	1/4	1/4
Languid Thickness	2.6	1.8	1.3	1.8
Material	97% Lead			