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Bar Nesting Software - PLUS 1D Report

Project Details

Project Name	
File Name	N:/Plus1D/Samples/pwdcoat.p1d
Job Order	
Date	Thursday, November 17, 2005
PLUS 1D Version No.	7.55

Summary of Optimization Results

Project Name	
Number of Layouts	7
Number of Stock Used	8
Total Parts Required	245
Total Parts Nested	245
Total Utilization	97.612
Overall Cost	740
Minimum Offcut Size	700
Loss per cut	5
Total Part Length	38 [m]
Total Stock Length	48.4 [m]
Total Stock Weight	48.4
Total Part Weight	37.25
Total Offcut Weight	9.244
Total Scrap Weight	1.906
Cutting time (in Minutes)	237
Machine loading time (in Minutes)	8
Total Machine (in Minutes)	245

Summary of Layouts

No.	Section	Stock	Size	Qty	Utl %	Rest	Details [PartLength x Qty]
1	2L203 x 203 x 28.6	4_6100	6100	2	97.87	56	265*x11 250x12 [ET=14]
2	2L203 x 203 x	4_6100	6100	1	96.07	206	265*x18 250x4 [ET=14]

No.	Section	Stock	Size	Qty	Utl %	Rest	Details [PartLength x Qty]
	28.6						
3	2L203 x 203 x 28.6	4_6100	6100	1	99.61	(5576)	250x2 [ET=14]
4	L203 x 203 x 28.6	1_5000	5000	1	94.32	40	90*x18 85x36 [ET=10]
5	L203 x 203 x 28.6	1_5000	5000	1	97.88	(2565)	90*x17 85x9 [ET=10]
6	W1100 x 499	2_7000	7000	1	96.09	223	130*x27 125x24 [ET=12]
7	W1100 x 499	2_7000	7000	1	100.4 6	(1103)	130*x33 125x11 [ET=12]

Stock Details

Stock	Section	Length	Qty	Cost /Piece	End Trim	Stk Wt [Kg]	Section Perimeter	Used	Total Cost	Total Wt [Kg]	Remarks
1_5000	L203 x 203 x 28.6	5000	100	50	10	5	0	2	100	10	
2_7000	W1100 x 499	7000	100	70	12	7	0	2	140	14	
4_6100	2L203 x 203 x 28.6	6100	45	125	14	6.1	0	4	500	24.4	
Total								8	740	48.4	

Part Details

Part	Section	Length	Cut Allow.	Qty	Cut	Weight	Powder Coating	Remarks
2_85	L203 x 203 x 28.6	85	0	45	45	0.085	Acier	
3_90	L203 x 203 x 28.6	90	2	35	35	0.09	Acier	
12_125	W1100 x 499	125	0	35	35	0.125	Annapurna	
13_130	W1100 x 499	130	8	60	60	0.13	Annapurna	
23_250	2L203 x 203 x 28.6	250	0	30	30	0.25	None	
24_265	2L203 x 203 x 28.6	265	5	40	40	0.265	None	

Powder Coating Details

Powder Coating Material Id	Coverage	Cost per Kg	Total Area	Cost
	m ² /Kg	m ² /Kg	m ²	
Acier	0.093	100	0	0
Annapurna	0.093	100	0	0
Total	----	----	----	0



Layout 1 of 7

Stock:4_6100 Section:2L203 x 203 x 28.6 Length:6100 Qty:2 Utl %:97.87 No Offcuts
End Trim:14

[24_265] 265*x11 [23_250] 250x12

265*x11 250x12 [ET=14]

24	24	24	24	24	24	24	24	24	24	24	24	23	23	23	23	23	23	23	23	23	23	23	23	250
265	265	265	265	265	265	265	265	265	265	265	265	250	250	250	250	250	250	250	250	250	250	250	250	250

Cut Details

Cut No	Cut Position	Angle	Part No	Flipped	Rotated (180)
1	14	0	ET	0	0
2	284	0	24_265	0	0
3	554	0	24_265	0	0
4	824	0	24_265	0	0
5	1094	0	24_265	0	0
6	1364	0	24_265	0	0
7	1634	0	24_265	0	0
8	1904	0	24_265	0	0
9	2174	0	24_265	0	0
10	2444	0	24_265	0	0
11	2714	0	24_265	0	0
12	2984	0	24_265	0	0
13	3239	0	23_250	0	0
14	3494	0	23_250	0	0
15	3749	0	23_250	0	0
16	4004	0	23_250	0	0
17	4259	0	23_250	0	0
18	4514	0	23_250	0	0
19	4769	0	23_250	0	0
20	5024	0	23_250	0	0
21	5279	0	23_250	0	0
22	5534	0	23_250	0	0
23	5789	0	23_250	0	0
24	6044	0	23_250	0	0



Layout 2 of 7

Stock: 4_6100	Section: 2L203 x 203 x 28.6	Length: 6100	Qty: 1	Utl %: 96.07	No Offcuts
End Trim: 14					
[24_265]	265*x18	[23_250]	250x4		
265*x18	250x4	[ET=14]			

24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23	23	23	23	250
265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	250	250	250	250	250

Cut Details

Cut No	Cut Position	Angle	Part No	Flipped	Rotated (180)
1	14	0	ET	0	0
2	284	0	24_265	0	0
3	554	0	24_265	0	0
4	824	0	24_265	0	0
5	1094	0	24_265	0	0
6	1364	0	24_265	0	0
7	1634	0	24_265	0	0
8	1904	0	24_265	0	0
9	2174	0	24_265	0	0
10	2444	0	24_265	0	0
11	2714	0	24_265	0	0
12	2984	0	24_265	0	0
13	3254	0	24_265	0	0
14	3524	0	24_265	0	0
15	3794	0	24_265	0	0
16	4064	0	24_265	0	0
17	4334	0	24_265	0	0
18	4604	0	24_265	0	0
19	4874	0	24_265	0	0
20	5129	0	23_250	0	0
21	5384	0	23_250	0	0
22	5639	0	23_250	0	0
23	5894	0	23_250	0	0

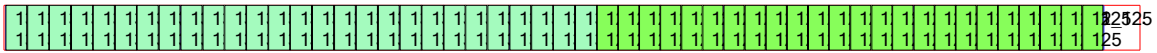


Cut No	Cut Position	Angle	Part No	Flipped	Rotated (180)
18	1625	0	3_90	0	0
19	1720	0	3_90	0	0
20	1810	0	2_85	0	0
21	1900	0	2_85	0	0
22	1990	0	2_85	0	0
23	2080	0	2_85	0	0
24	2170	0	2_85	0	0
25	2260	0	2_85	0	0
26	2350	0	2_85	0	0
27	2440	0	2_85	0	0
28	2530	0	2_85	0	0
29	2620	0	2_85	0	0
30	2710	0	2_85	0	0
31	2800	0	2_85	0	0
32	2890	0	2_85	0	0
33	2980	0	2_85	0	0
34	3070	0	2_85	0	0
35	3160	0	2_85	0	0
36	3250	0	2_85	0	0
37	3340	0	2_85	0	0
38	3430	0	2_85	0	0
39	3520	0	2_85	0	0
40	3610	0	2_85	0	0
41	3700	0	2_85	0	0
42	3790	0	2_85	0	0
43	3880	0	2_85	0	0
44	3970	0	2_85	0	0
45	4060	0	2_85	0	0
46	4150	0	2_85	0	0
47	4240	0	2_85	0	0
48	4330	0	2_85	0	0
49	4420	0	2_85	0	0
50	4510	0	2_85	0	0
51	4600	0	2_85	0	0
52	4690	0	2_85	0	0
53	4780	0	2_85	0	0
54	4870	0	2_85	0	0
55	4960	0	2_85	0	0



Layout 5 of 7

Stock:1_5000 Section:L203 x 203 x 28.6 Length:5000 Qty:1 Util %:97.88
Offcut:2565 End Trim:10



Cut Details

Cut No	Cut Position	Angle	Part No	Flipped	Rotated (180)
1	12	0	ET	0	0
2	147	0	13_130	0	0
3	282	0	13_130	0	0
4	417	0	13_130	0	0
5	552	0	13_130	0	0
6	687	0	13_130	0	0
7	822	0	13_130	0	0
8	957	0	13_130	0	0
9	1092	0	13_130	0	0
10	1227	0	13_130	0	0
11	1362	0	13_130	0	0
12	1497	0	13_130	0	0
13	1632	0	13_130	0	0
14	1767	0	13_130	0	0
15	1902	0	13_130	0	0
16	2037	0	13_130	0	0
17	2172	0	13_130	0	0
18	2307	0	13_130	0	0
19	2442	0	13_130	0	0
20	2577	0	13_130	0	0
21	2712	0	13_130	0	0
22	2847	0	13_130	0	0
23	2982	0	13_130	0	0
24	3117	0	13_130	0	0
25	3252	0	13_130	0	0
26	3387	0	13_130	0	0
27	3522	0	13_130	0	0
28	3657	0	13_130	0	0
29	3787	0	12_125	0	0
30	3917	0	12_125	0	0
31	4047	0	12_125	0	0
32	4177	0	12_125	0	0
33	4307	0	12_125	0	0
34	4437	0	12_125	0	0
35	4567	0	12_125	0	0
36	4697	0	12_125	0	0
37	4827	0	12_125	0	0
38	4957	0	12_125	0	0
39	5087	0	12_125	0	0
40	5217	0	12_125	0	0
41	5347	0	12_125	0	0
42	5477	0	12_125	0	0
43	5607	0	12_125	0	0

Cut No	Cut Position	Angle	Part No	Flipped	Rotated (180)
22	2847	0	13_130	0	0
23	2982	0	13_130	0	0
24	3117	0	13_130	0	0
25	3252	0	13_130	0	0
26	3387	0	13_130	0	0
27	3522	0	13_130	0	0
28	3657	0	13_130	0	0
29	3792	0	13_130	0	0
30	3927	0	13_130	0	0
31	4062	0	13_130	0	0
32	4197	0	13_130	0	0
33	4332	0	13_130	0	0
34	4467	0	13_130	0	0
35	4597	0	12_125	0	0
36	4727	0	12_125	0	0
37	4857	0	12_125	0	0
38	4987	0	12_125	0	0
39	5117	0	12_125	0	0
40	5247	0	12_125	0	0
41	5377	0	12_125	0	0
42	5507	0	12_125	0	0
43	5637	0	12_125	0	0
44	5767	0	12_125	0	0
45	5897	0	12_125	0	0

Offcut/Drops List

No.	From Stock	Size	Qty	Weight	Cost	Material
1	4_6100	5576	1	5.576	107.407	2L203 x 203 x 28.6
2	1_5000	2565	1	2.565	24.111	L203 x 203 x 28.6
3	2_7000	1103	1	1.103	10.368	W1100 x 499

Material Usage Summary (All Lengths in "[m]")

Section	Used Len	Used Wt	Scrap Len	Total Scrap Weight	Off Len	Total Offcut Weight
2L203 x 203 x 28.6	24.4	24.4	0.318	0.318	5.576	5.576
L203 x 203 x 28.6	10	10	0.04	0.04	2.565	2.565
W1100 x 499	14	14	0.223	0.223	1.103	1.103