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PLUS 2D Nesting Software Optimization Report

General Details:

Project Name	
File Name	N:/Plus2D/Samples/multistkmtl.plj
Job No	
Customer	
CustomerId	
Created By	
Approved By	
Date	Wednesday, July 21, 2010
Material	steel
Thk	1
PLUS 2D Version No.	8.68

Stock Details:

Id	Length	Width	Cost	Qty	Remarks
1	1777	786	435.78	150	
2	1970	873	536.58	150	
3	1870	927	540.85	150	
4	1437	911	408.44	150	

Part Details:

Name	Fin. Length	Fin. Width	Rotn	Qty	Type	Remarks
1	379	157	1	167	Rect	
2	140	356	1	120	Rect	
3	955	227	1	124	Rect	
4	685	423	1	180	Rect	
5	919	111	1	129	Rect	
6	593	323	1	100	Rect	
7	188	444	1	153	Rect	
8	699	484	1	120	Rect	

Summary of Optimization Results:

Summary of Optimization Results:	
Grinding Margin	0
Saw Width	0
Number of Layouts	10
Number of Stock Used	109
Total Utilization	97.10 %
Total Parts Required	1093
Total Parts Nested	1093
Reusable Offcuts	1
Total Stock Area	186.08
Total Part Area	180.64
Offcut Area	0.05
Scrap Area	5.39
Total Stock Weight	1451.43
Total Part Weight	1408.97
Total Offcut Weight	0.41
Total Scrap Weight	42.05
ScrapWt/PartWt	2.98 %

Summary of Layouts:

No	Name	Qty	Util%	Cost	Parts	Offcut Qty - Size
1	1	1	93.31	435.78	10	0
2	2	17	97.85	9121.87	187	0
3	2	7	97.44	3756.07	98	0
4	2	5	96.82	2682.90	90	0
5	2	1	89.47	536.58	11	1
6	3	30	97.40	16225.47	210	0
7	3	9	97.29	4867.64	81	0
8	3	11	96.92	5949.34	110	0
9	3	23	96.79	12439.52	276	0
10	4	5	95.95	2042.21	20	0

Parts Summary Table:

No	Name	Size (L x W)	Nested (Required)	Area	Weight	Remarks
1	1	379 x 157	167 (167)	9.94	77.51	
2	2	140 x 356	120 (120)	5.98	46.65	
3	3	955 x 227	124 (124)	26.88	209.67	
4	4	685 x 423	180 (180)	52.16	406.82	
5	5	919 x 111	129 (129)	13.16	102.64	
6	6	593 x 323	100 (100)	19.15	149.4	
7	7	188 x 444	153 (153)	12.77	99.62	
8	8	699 x 484	120 (120)	40.6	316.66	
		Total	1093 (1093)	180.64	1408.97	

Stocks used details:

No	Name	Length	Width	Avail Qty	Utl Qty	Area
1	1	1777	786	150	1	1.4
2	2	1970	873	150	30	51.59
3	3	1870	927	150	73	126.54
4	4	1437	911	150	5	6.55
	Total				109	186.08

Offcut Details :

Id	Length	Width	Cost	Qty	Area
Off_5_3	231	227	16.36	1	0.05
Total				1	0.05

Parts Cut List:

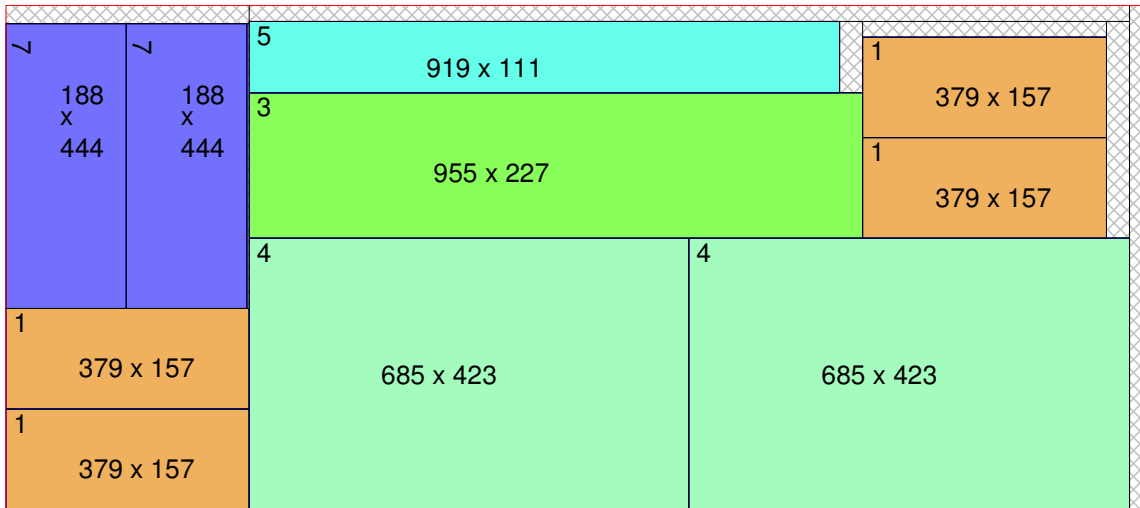
Name	Length	Width	Qty	Remarks Layout-Qty
1	379	157	167	9-23/8-22/5-3/4-25/3-56/2-34/1-4
2	140	356	120	9-69/5-1/4-50
3	955	227	124	7-27/6-30/5-1/3-14/2-51/1-1
4	685	423	180	10-10/9-69/8-11/7-9/6-30/4-15/2-34/1-2
5	919	111	129	9-92/7-36/1-1
6	593	323	100	9-23/8-44/5-5/3-28
7	188	444	153	8-22/6-60/5-1/2-68/1-2
8	699	484	120	10-10/8-11/7-9/6-90

Detailed table about Stocks & Parts:

No	Stk Length	Stk Width	Stk Area	Prt Length	Prt Width	Qty	Part Area	Name
1	1777	786	1.4					
				379	157	4	0.24	1
				955	227	1	0.22	3
				685	423	2	0.58	4
				919	111	1	0.1	5
				188	444	2	0.17	7
			93.31 %				1.3	
2	1970	873	1.72					
				379	157	2	0.12	1
				955	227	3	0.65	3
				685	423	2	0.58	4
				188	444	4	0.33	7
			97.85 %				1.68	
3	1970	873	1.72					
				379	157	8	0.48	1
				955	227	2	0.43	3
				593	323	4	0.77	6
			97.44 %				1.68	
4	1970	873	1.72					
				379	157	5	0.3	1
				140	356	10	0.5	2
				685	423	3	0.87	4
			96.82 %				1.67	
5	1970	873	1.72					
				379	157	3	0.18	1
				140	356	1	0.05	2
				955	227	1	0.22	3
				593	323	5	0.96	6
				188	444	1	0.08	7
			89.47 %				1.49	
6	1870	927	1.73					
				955	227	1	0.22	3
				685	423	1	0.29	4
				188	444	2	0.17	7
				699	484	3	1.01	8
			97.40 %				1.69	
7	1870	927	1.73					
				955	227	3	0.65	3
				685	423	1	0.29	4
				919	111	4	0.41	5
				699	484	1	0.34	8
			97.29 %				1.69	
8	1870	927	1.73					
				379	157	2	0.12	1

No	Stk Length	Stk Width	Stk Area	Prt Length	Prt Width	Qty	Part Area	Name
				685	423	1	0.29	4
				593	323	4	0.77	6
				188	444	2	0.17	7
				699	484	1	0.34	8
			96.92 %				1.68	
9	1870	927	1.73					
				379	157	1	0.06	1
				140	356	3	0.15	2
				685	423	3	0.87	4
				919	111	4	0.41	5
				593	323	1	0.19	6
			96.79 %				1.68	
10	1437	911	1.31					
				685	423	2	0.58	4
				699	484	2	0.68	8
			95.95 %				1.26	

Details of each Layout:



Layout 1 of 10(Stock:1 Dim:1777 x 786 Qty:1)

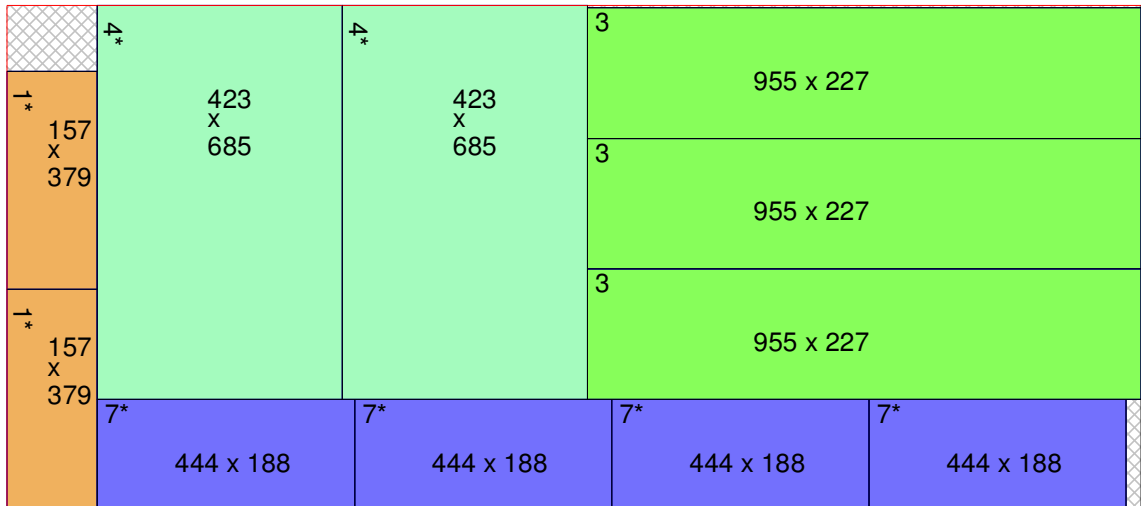
Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	4	0.24	4	0/167	
3	955	227	1	0.22	1	0/124	
4	685	423	2	0.58	2	0/180	
5	919	111	1	0.1	1	0/129	
7	188	444	2	0.17	2	0/153	
Total			10	1.3	10		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	379	0	379	786
2	0	157	379	157
3	0	314	379	314
4	0	758	379	758
5	188	314	188	758
6	376	314	376	758
7	1749	0	1749	786
8	379	423	1749	423
9	1064	0	1064	423
10	379	761	1749	761
11	1334	423	1334	761
12	379	650	1334	650

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
13	1298	650	1298	761
14	1713	423	1713	761
15	1334	580	1713	580
16	1334	737	1713	737



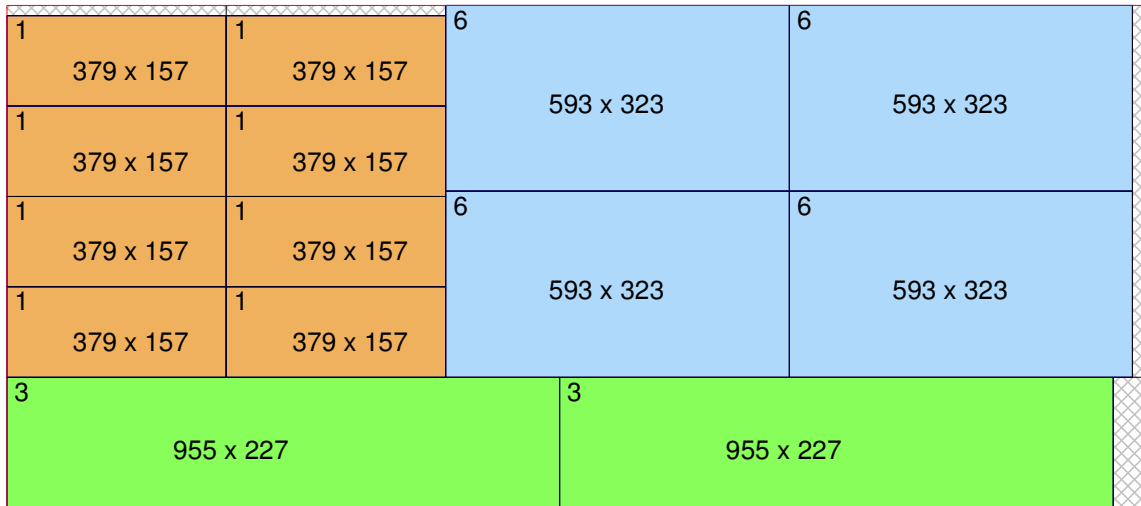
Layout 2 of 10(Stock:2 Dim:1970 x 873 Qty:17)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	2	0.12	34	4/167	
3	955	227	3	0.65	51	1/124	
4	685	423	2	0.58	34	2/180	
7	188	444	4	0.33	68	2/153	
Total			11	1.68	187		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	157	0	157	873
2	0	379	157	379
3	0	758	157	758
4	1958	0	1958	873
5	157	188	1958	188
6	601	0	601	188
7	1045	0	1045	188
8	1489	0	1489	188
9	1933	0	1933	188
10	580	188	580	873
11	1003	188	1003	873
12	1003	415	1958	415
13	1003	642	1958	642
14	1003	869	1958	869



Layout 3 of 10(Stock:2 Dim:1970 x 873 Qty:7)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	8	0.48	56	38/167	
3	955	227	2	0.43	14	52/124	
6	593	323	4	0.77	28	0/100	
Total			14	1.68	98		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	0	227	1970	227
2	955	0	955	227
3	1910	0	1910	227
4	379	227	379	873
5	0	384	379	384
6	0	541	379	541
7	0	698	379	698
8	0	855	379	855
9	758	227	758	873
10	379	384	758	384
11	379	541	758	541
12	379	698	758	698
13	379	855	758	855
14	1351	227	1351	873
15	758	550	1351	550
16	1944	227	1944	873
17	1351	550	1944	550

4*	4*	4*	140 X 356	140 X 356	140 X 356	140 X 356	140 X 356
423 X 685	423 X 685	423 X 685	140 X 356	140 X 356	140 X 356	140 X 356	140 X 356
1	1	1	1	1			
379 x 157	379 x 157	379 x 157	379 x 157	379 x 157			

Layout 4 of 10(Stock:2 Dim:1970 x 873 Qty:5)

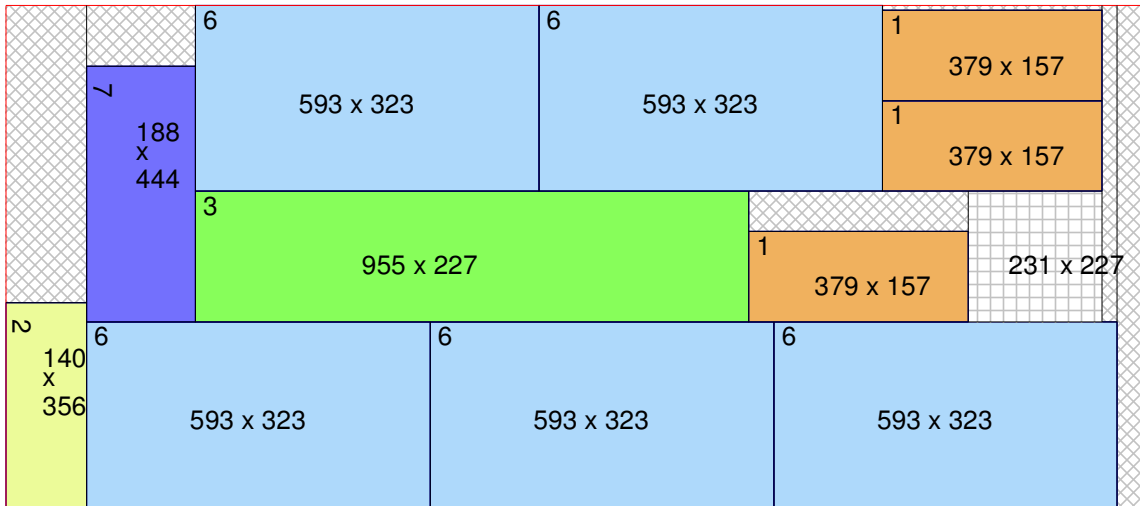
Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	5	0.3	25	94/167	
2	140	356	10	0.5	50	0/120	
4	685	423	3	0.87	15	36/180	
Total			18	1.67	90		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	0	157	1970	157
2	379	0	379	157
3	758	0	758	157
4	1137	0	1137	157
5	1516	0	1516	157
6	1895	0	1895	157
7	0	869	1970	869
8	423	157	423	869
9	0	842	423	842
10	846	157	846	869
11	423	842	846	842
12	1269	157	1269	869
13	846	842	1269	842
14	1549	157	1549	869
15	1269	513	1549	513
16	1409	157	1409	513
17	1409	513	1409	869

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
18	1969	157	1969	869
19	1549	513	1969	513
20	1689	157	1689	513
21	1829	157	1829	513
22	1689	513	1689	869
23	1829	513	1829	869



Layout 5 of 10(Stock:2 Dim:1970 x 873 Qty:1)

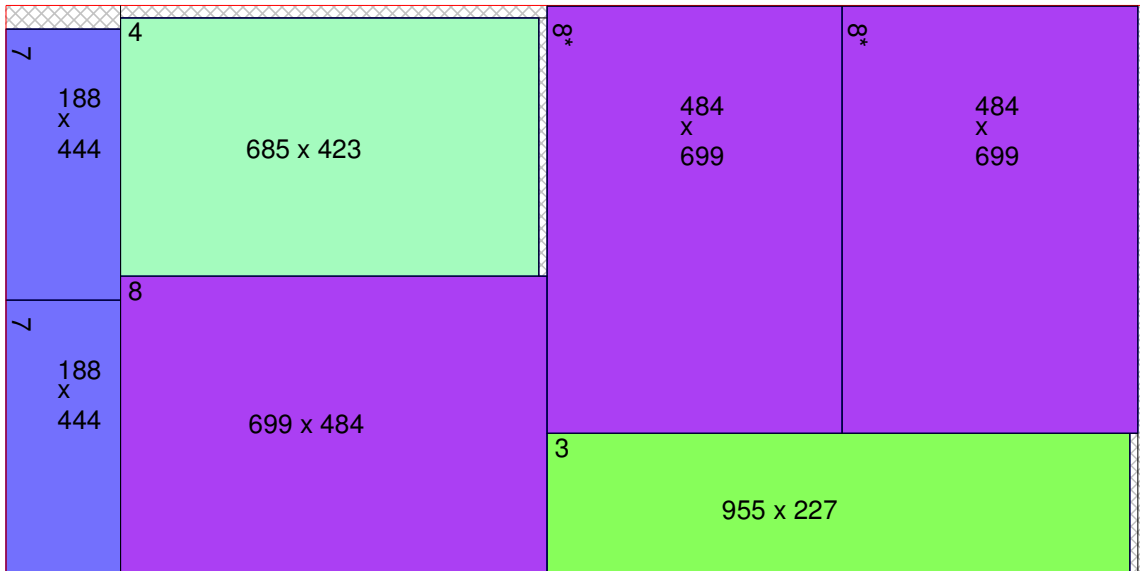
Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	3	0.18	3	119/167	
2	140	356	1	0.05	1	50/120	
3	955	227	1	0.22	1	66/124	
6	593	323	5	0.96	5	28/100	
7	188	444	1	0.08	1	70/153	
Total			11	1.49	11		
Offcuts							
Off_5_3	231	227	1	0.05	1		
Total			1	0.05	1		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	140	0	140	873
2	0	356	140	356
3	1919	0	1919	873
4	140	323	1919	323
5	733	0	733	323
6	1326	0	1326	323
7	328	323	328	873
8	140	767	328	767
9	1893	323	1893	873
10	328	550	1893	550
11	1283	323	1283	550
12	1662	323	1662	550

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
13	1283	480	1662	480
14	921	550	921	873
15	1514	550	1514	873
16	1514	707	1893	707
17	1514	864	1893	864



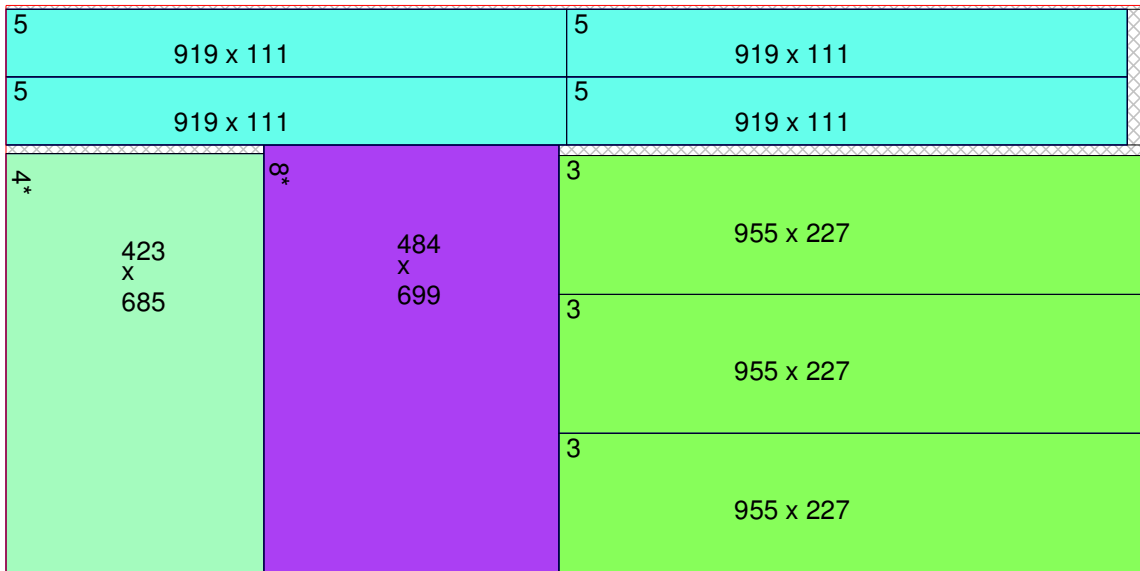
Layout 6 of 10(Stock:3 Dim:1870 x 927 Qty:30)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
3	955	227	1	0.22	30	67/124	
4	685	423	1	0.29	30	51/180	
7	188	444	2	0.17	60	71/153	
8	699	484	3	1.01	90	0/120	
Total			7	1.69	210		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	188	0	188	927
2	0	444	188	444
3	0	888	188	888
4	887	0	887	927
5	188	484	887	484
6	188	907	887	907
7	873	484	873	907
8	1855	0	1855	927
9	887	227	1855	227
10	1842	0	1842	227
11	887	926	1855	926
12	1371	227	1371	926



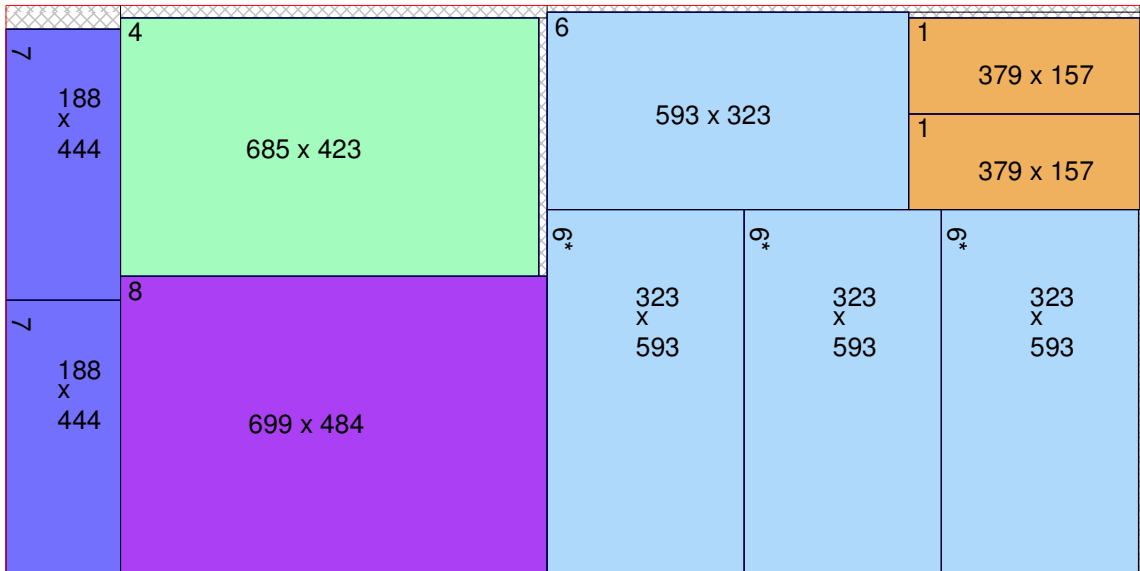
Layout 7 of 10(Stock:3 Dim:1870 x 927 Qty:9)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
3	955	227	3	0.65	27*	97/124	
4	685	423	1	0.29	9	81/180	
5	919	111	4	0.41	36	1/129	
8	699	484	1	0.34	9	90/120	
Total			9	1.69	81		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	0	699	1870	699
2	423	0	423	699
3	0	685	423	685
4	907	0	907	699
5	1862	0	1862	699
6	907	227	1862	227
7	907	454	1862	454
8	907	681	1862	681
9	0	921	1870	921
10	919	699	919	921
11	0	810	919	810
12	1838	699	1838	921
13	919	810	1838	810



Layout 8 of 10(Stock:3 Dim:1870 x 927 Qty:11)

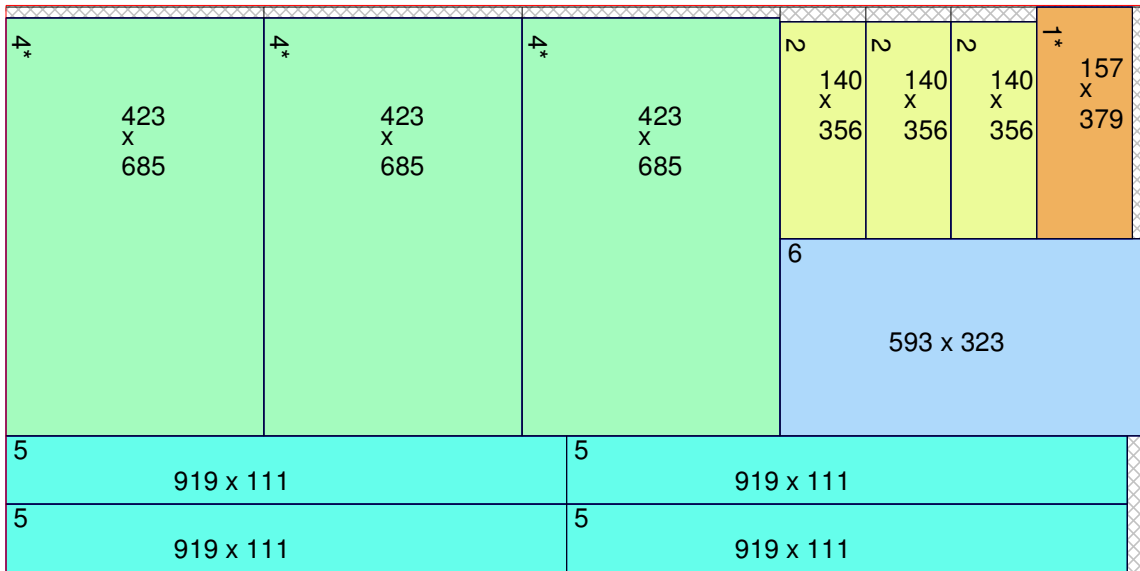
Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	2	0.12	22	122/167	
4	685	423	1	0.29	11	90/180	
6	593	323	4	0.77	44	33/100	
7	188	444	2	0.17	22*	131/153	
8	699	484	1	0.34	11	99/120	
Total			10	1.68	110		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	188	0	188	927
2	0	444	188	444
3	0	888	188	888
4	887	0	887	927
5	188	484	887	484
6	188	907	887	907
7	873	484	873	907
8	1859	0	1859	927
9	887	593	1859	593
10	1210	0	1210	593
11	1533	0	1533	593
12	1856	0	1856	593
13	887	916	1859	916

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
14	1480	593	1480	916
15	1480	750	1859	750
16	1480	907	1859	907



Layout 9 of 10(Stock:3 Dim:1870 x 927 Qty:23)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
1	379	157	1	0.06	23*	144/167	
2	140	356	3	0.15	69*	51/120	
4	685	423	3	0.87	69	101/180	
5	919	111	4	0.41	92*	37/129	
6	593	323	1	0.19	23*	77/100	
Total			12	1.68	276		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	0	222	1870	222
2	919	0	919	222
3	0	111	919	111
4	1838	0	1838	222
5	919	111	1838	111
6	0	924	1870	924
7	423	222	423	924
8	0	907	423	907
9	846	222	846	924
10	423	907	846	907
11	1269	222	1269	924
12	846	907	1269	907
13	1862	222	1862	924

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
14	1269	545	1862	545
15	1409	545	1409	924
16	1269	901	1409	901
17	1549	545	1549	924
18	1409	901	1549	901
19	1689	545	1689	924
20	1549	901	1689	901
21	1846	545	1846	924



Layout 10 of 10(Stock:4 Dim:1437 x 911 Qty:5)

Bill Of Materials:

Name	Length	Width	Qty	Area	Total Qty.	Prod./Re qd.	Remarks
4	685	423	2	0.58	10*	170/180	
8	699	484	2	0.68	10*	110/120	
Total			4	1.26	20		

Cutting Instructions:

CutIndex	StartPt X	StartPt Y	EndPt X	EndPt Y
1	0	484	1437	484
2	699	0	699	484
3	1398	0	1398	484
4	0	907	1437	907
5	685	484	685	907
6	1370	484	1370	907