



## Nirvana Technologies Pvt. Ltd.

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### Bar Nesting Software - PLUS 1D Report

#### Project Details

| Project Name        |   |
|---------------------|---|
| File Name           | //Server/dev-nirvanatec.com/downloads/largeparts/plus1d_samples/sample1.p1D |
| Job Order           |   |
| Date                | Friday, July 04, 2008   |
| PLUS 1D Version No. | 7.54  |

#### Summary of Optimization Results

| Project Name                      |                     |
|-----------------------------------|---------------------|
| Number of Layouts                 | 24                  |
| Number of Stock Used              | 43                  |
| Total Parts Required              | 74                  |
| Total Parts Nested                | 74                  |
| Total Utilization                 | 91.538              |
| Overall Cost                      | 421696.992          |
| Minimum Offcut Size               | Offcuts Not Allowed |
| Loss per cut                      | 0                   |
| Total Part Length                 | 389.95 [m]          |
| Total Stock Length                | 426 [m]             |
| Total Stock Weight                | 426                 |
| Total Part Weight                 | 389.95              |
| Total Scrap Weight                | 36.05               |
| Cutting time (in Minutes)         | 31                  |
| Machine loading time (in Minutes) | 43                  |
| Total Machine (in Minutes)        | 74                  |

#### Summary of Layouts

| No. | Section | Stock | Size  | Qty | Utl % | Rest | Details [PartLength x Qty] |
|-----|---------|-------|-------|-----|-------|------|----------------------------|
| 1   | 252     | 4     | 12500 | 1   | 94.98 | 628  | 4367x1 2686x2 2133x1       |
| 2   | 252     | 8     | 8040  | 1   | 80.85 | 1540 | 6500x1                     |
| 3   | 300     | 5     | 8040  | 4   | 99.66 | 27   | 8013x1                     |
| 4   | 300     | 5     | 8040  | 1   | 100   | 0    | 6663x1 1377x1              |
| 5   | 300     | 1     | 12500 | 1   | 99.16 | 105  | 6886x1 5509x1              |

| No. | Section | Stock | Size  | Qty | Utl % | Rest | Details [PartLength x Qty] |
|-----|---------|-------|-------|-----|-------|------|----------------------------|
| 6   | 300     | 5     | 8040  | 1   | 99.9  | 8    | 5936x1 2096x1              |
| 7   | 300     | 5     | 8040  | 1   | 98.66 | 108  | 5159x1 2773x1              |
| 8   | 300     | 5     | 8040  | 1   | 100   | 0    | 4790x1 3250x1              |
| 9   | 300     | 1     | 12500 | 1   | 99.49 | 64   | 5936x1 3250x2              |
| 10  | 300     | 5     | 8040  | 4   | 100   | 0    | 8040x1                     |
| 11  | 300     | 1     | 12500 | 1   | 97.99 | 251  | 6313x1 5936x1              |
| 12  | 300     | 5     | 8040  | 1   | 99.96 | 3    | 4787x1 3250x1              |
| 13  | 300     | 5     | 8040  | 2   | 99.9  | 8    | 4787x1 3245x1              |
| 14  | 300     | 5     | 8040  | 2   | 100   | 0    | 4399x1 3641x1              |
| 15  | 300     | 5     | 8040  | 2   | 98.25 | 141  | 4399x1 3500x1              |
| 16  | 300     | 1     | 12500 | 4   | 99.77 | 29   | 5968x1 3253x1 3250x1       |
| 17  | 300     | 1     | 12500 | 1   | 99.6  | 50   | 5936x1 4787x1 1727x1       |
| 18  | 300     | 1     | 12500 | 1   | 94.98 | 628  | 5936x2                     |
| 19  | 300     | 5     | 8040  | 1   | 38.84 | 4917 | 3123x1                     |
| 20  | 400     | 6     | 8040  | 1   | 100   | 0    | 5868x1 2172x1              |
| 21  | 400     | 6     | 8040  | 1   | 99.98 | 2    | 8038x1                     |
| 22  | 400     | 6     | 8040  | 1   | 99.9  | 8    | 5164x1 2868x1              |
| 23  | 400     | 6     | 8040  | 1   | 91.24 | 704  | 7336x1                     |
| 24  | 536     | 3     | 12500 | 8   | 73.49 | 3314 | 9186x1                     |

## Stock Details

| Stock | Section | Length | Qty  | Used | Remarks |
|-------|---------|--------|------|------|---------|
| 1     | 300     | 12500  | 1000 | 9    |         |
| 2     | 400     | 12500  | 1000 | 0    |         |
| 3     | 536     | 12500  | 1000 | 8    |         |
| 4     | 252     | 12500  | 1000 | 1    |         |
| 5     | 300     | 8040   | 1000 | 20   |         |
| 6     | 400     | 8040   | 1000 | 4    |         |
| 7     | 536     | 8040   | 1000 | 0    |         |
| 8     | 252     | 8040   | 1000 | 1    |         |

## Part Details

| Part | Section | Length | Qty | Cut | Weight | Remarks |
|------|---------|--------|-----|-----|--------|---------|
| 1    | 252     | 2686   | 2   | 2   | 2.686  |         |
| 2    | 300     | 3250   | 4   | 4   | 3.25   |         |
| 3    | 300     | 3250   | 4   | 4   | 3.25   |         |
| 4    | 300     | 3500   | 2   | 2   | 3.5    |         |
| 5    | 300     | 5936   | 2   | 2   | 5.936  |         |
| 6    | 300     | 5936   | 4   | 4   | 5.936  |         |
| 7    | 300     | 5968   | 4   | 4   | 5.968  |         |
| Lp1  | 252     | 6500   | 2   | 2   | 6.5    |         |
| Lp2  | 300     | 6886   | 4   | 4   | 6.886  |         |
| Lp3  | 300     | 6886   | 2   | 2   | 6.886  |         |
| Lp4  | 400     | 7336   | 2   | 2   | 7.336  |         |
| Lp5  | 300     | 8013   | 4   | 4   | 8.013  |         |
| Lp6  | 400     | 8038   | 1   | 1   | 8.038  |         |
| Lp7  | 400     | 8736   | 1   | 1   | 8.736  |         |
| Lp8  | 536     | 9186   | 8   | 8   | 9.186  |         |
| Lp9  | 300     | 9186   | 4   | 4   | 9.186  |         |
| Lp10 | 300     | 9436   | 2   | 2   | 9.436  |         |
| Lp11 | 300     | 11293  | 4   | 4   | 11.293 |         |

## Splitting Rules

| Conditions   | Values         |
|--|----------------|
| Minimum Part Length considered for splitting         | 6000           |
| Minimum smaller piece Length of part after splitting | 1200           |
| Minimum Joint Distance from end for flange           | 0.200000       |
| Maximum Joint Distance from end for flange           | 0.333333       |
| Joint Distance from end for web                      | 0.500000       |
| Tolerance allowed for web joint                      | +/- 250.000000 |
| Maximum joints allowed, in case of multiple joints   | 2              |

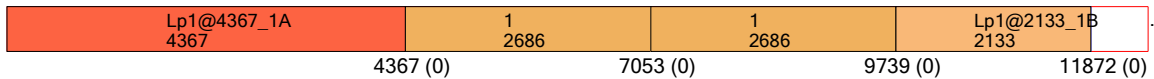
## Joint Part Details

| Part Name   | Section | Length | Qty | Cut | Layout_Qty |
|-------------|---------|--------|-----|-----|------------|
| Lp1         | 252     | 6500   | 2   | 2   |            |
| Lp1@4367_1A | 252     | 4367   | 1   | 1   | 1_1        |
| Lp1@2133_1B | 252     | 2133   | 1   | 1   | 1_1        |
| Lp1@6500_A  | 252     | 6500   | 1   | 1   | 2_1        |
|             |         |        |     |     |            |
| Lp2         | 300     | 6886   | 4   | 4   |            |
| Lp2@5509_1A | 300     | 5509   | 1   | 1   | 5_1        |
| Lp2@1377_1B | 300     | 1377   | 1   | 1   | 4_1        |
| Lp2@5159_2A | 300     | 5159   | 1   | 1   | 7_1        |
| Lp2@1727_2B | 300     | 1727   | 1   | 1   | 17_1       |
| Lp2@4790_3A | 300     | 4790   | 1   | 1   | 8_1        |
| Lp2@2096_3B | 300     | 2096   | 1   | 1   | 6_1        |
| Lp2@6886_A  | 300     | 6886   | 1   | 1   | 5_1        |
|             |         |        |     |     |            |
| Lp3         | 300     | 6886   | 2   | 2   |            |
| Lp3@3641_1A | 300     | 3641   | 2   | 2   | 14_2       |
| Lp3@3245_1B | 300     | 3245   | 2   | 2   | 13_2       |
|             |         |        |     |     |            |
| Lp4         | 400     | 7336   | 2   | 2   |            |
| Lp4@5164_1A | 400     | 5164   | 1   | 1   | 22_1       |
| Lp4@2172_1B | 400     | 2172   | 1   | 1   | 20_1       |
| Lp4@7336_A  | 400     | 7336   | 1   | 1   | 23_1       |
|             |         |        |     |     |            |
| Lp5         | 300     | 8013   | 4   | 4   |            |
| Lp5@8013_A  | 300     | 8013   | 4   | 4   | 3_4        |
|             |         |        |     |     |            |
| Lp6         | 400     | 8038   | 1   | 1   |            |
| Lp6@8038_A  | 400     | 8038   | 1   | 1   | 21_1       |
|             |         |        |     |     |            |
| Lp7         | 400     | 8736   | 1   | 1   |            |
| Lp7@5868_1A | 400     | 5868   | 1   | 1   | 20_1       |
| Lp7@2868_1B | 400     | 2868   | 1   | 1   | 22_1       |
|             |         |        |     |     |            |
| Lp8         | 536     | 9186   | 8   | 8   |            |
| Lp8@9186_A  | 536     | 9186   | 8   | 8   | 24_8       |

| Part Name    | Section | Length | Qty | Cut | Layout_Qty     |
|--------------|---------|--------|-----|-----|----------------|
| Lp9          | 300     | 9186   | 4   | 4   |                |
| Lp9@4787_1A  | 300     | 4787   | 4   | 4   | 12_1,13_2,17_1 |
| Lp9@4399_1B  | 300     | 4399   | 4   | 4   | 14_2,15_2      |
| Lp10         | 300     | 9436   | 2   | 2   |                |
| Lp10@6663_1A | 300     | 6663   | 1   | 1   | 4_1            |
| Lp10@2773_1B | 300     | 2773   | 1   | 1   | 7_1            |
| Lp10@6313_2A | 300     | 6313   | 1   | 1   | 11_1           |
| Lp10@3123_2B | 300     | 3123   | 1   | 1   | 19_1           |
| Lp11         | 300     | 11293  | 4   | 4   |                |
| Lp11@8040_1A | 300     | 8040   | 4   | 4   | 10_4           |
| Lp11@3253_1B | 300     | 3253   | 4   | 4   | 16_4           |

### Layout 1 of 24

| Stock:4  | Material:252 | Length:12500 | Qty:1 | Utl %:94.98 |
|--|--------------|--------------|-------|-------------|
| [Lp1@4367_1A] 4367x1 [1] 2686x2 [Lp1@2133_1B] 2133x1 |              |              |       |             |
| 4367x1 2686x2 2133x1                                 |              |              |       |             |

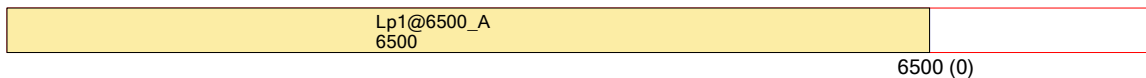


### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4367         | 0     | Lp1@4367_1A | 0       | 0             |
| 2      | 7053         | 0     | 1           | 0       | 0             |
| 3      | 9739         | 0     | 1           | 0       | 0             |
| 4      | 11872        | 0     | Lp1@2133_1B | 0       | 0             |

### Layout 2 of 24

| Stock:8             | Material:252 | Length:8040 | Qty:1 | Utl %:80.85 |
|---------------------|--------------|-------------|-------|-------------|
| [Lp1@6500_A] 6500x1 |              |             |       |             |
| 6500x1              |              |             |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No    | Flipped | Rotated (180) |
|--------|--------------|-------|------------|---------|---------------|
| 1      | 6500         | 0     | Lp1@6500_A | 0       | 0             |

### Layout 3 of 24

|                     |                     |                    |              |                    |
|---------------------|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b>      | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:4</b> | <b>Utl %:99.66</b> |
| [Lp5@8013_A] 8013x1 |                     |                    |              |                    |
| 8013x1              |                     |                    |              |                    |

|                    |          |
|--------------------|----------|
| Lp5@8013_A<br>8013 | 8013 (0) |
|--------------------|----------|

### Cut Details

| Cut No | Cut Position | Angle | Part No    | Flipped | Rotated (180) |
|--------|--------------|-------|------------|---------|---------------|
| 1      | 8013         | 0     | Lp5@8013_A | 0       | 0             |

### Layout 4 of 24

|  |                     |                    |              |                     |
|--|---------------------|--------------------|--------------|---------------------|
| <b>Stock:5</b>                             | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:100.00</b> |
| [Lp10@6663_1A] 6663x1 [Lp2@1377_1B] 1377x1 |                     |                    |              |                     |
| 6663x1 1377x1                              |                     |                    |              |                     |

|                      |                     |          |          |
|----------------------|---------------------|----------|----------|
| Lp10@6663_1A<br>6663 | Lp2@1377_1B<br>1377 | 6663 (0) | 8040 (0) |
|----------------------|---------------------|----------|----------|

### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 6663         | 0     | Lp10@6663_1A | 0       | 0             |
| 2      | 8040         | 0     | Lp2@1377_1B  | 0       | 0             |

### Layout 5 of 24

|  |                     |                     |              |                    |
|--|---------------------|---------------------|--------------|--------------------|
| <b>Stock:1</b>                           | <b>Material:300</b> | <b>Length:12500</b> | <b>Qty:1</b> | <b>Utl %:99.16</b> |
| [Lp2@6886_A] 6886x1 [Lp2@5509_1A] 5509x1 |                     |                     |              |                    |
| 6886x1 5509x1                            |                     |                     |              |                    |

|                    |                     |          |           |
|--------------------|---------------------|----------|-----------|
| Lp2@6886_A<br>6886 | Lp2@5509_1A<br>5509 | 6886 (0) | 12395 (0) |
|--------------------|---------------------|----------|-----------|

### Cut Details

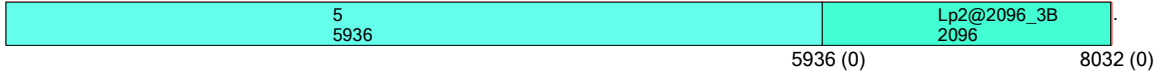
| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 6886         | 0     | Lp2@6886_A  | 0       | 0             |
| 2      | 12395        | 0     | Lp2@5509_1A | 0       | 0             |

### Layout 6 of 24

|                |                     |                    |              |                    |
|----------------|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b> | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:99.90</b> |
|----------------|---------------------|--------------------|--------------|--------------------|

|                     |           |                     |
|---------------------|-----------|---------------------|
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|---------------------|-----------|---------------------|

|                                 |                     |                    |              |                    |
|---------------------------------|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b>                  | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:99.90</b> |
| [5] 5936x1 [Lp2@2096_3B] 2096x1 |                     |                    |              |                    |
| 5936x1 2096x1                   |                     |                    |              |                    |



### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 5936         | 0     | 5           | 0       | 0             |
| 2      | 8032         | 0     | Lp2@2096_3B | 0       | 0             |

### Layout 7 of 24

|  |                     |                    |              |                    |
|--|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b>                             | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:98.66</b> |
| [Lp2@5159_2A] 5159x1 [Lp10@2773_1B] 2773x1 |                     |                    |              |                    |
| 5159x1 2773x1                              |                     |                    |              |                    |

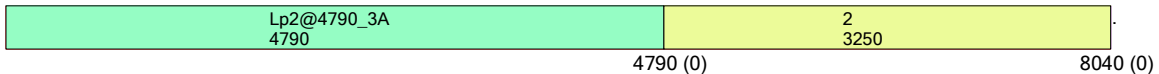


### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 5159         | 0     | Lp2@5159_2A  | 0       | 0             |
| 2      | 7932         | 0     | Lp10@2773_1B | 0       | 0             |

### Layout 8 of 24

|                                 |                     |                    |              |                     |
|---------------------------------|---------------------|--------------------|--------------|---------------------|
| <b>Stock:5</b>                  | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:100.00</b> |
| [Lp2@4790_3A] 4790x1 [2] 3250x1 |                     |                    |              |                     |
| 4790x1 3250x1                   |                     |                    |              |                     |



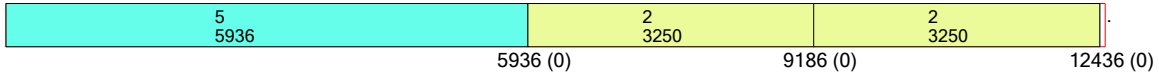
### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4790         | 0     | Lp2@4790_3A | 0       | 0             |
| 2      | 8040         | 0     | 2           | 0       | 0             |

### Layout 9 of 24

|                       |                     |                     |              |                    |
|-----------------------|---------------------|---------------------|--------------|--------------------|
| <b>Stock:1</b>        | <b>Material:300</b> | <b>Length:12500</b> | <b>Qty:1</b> | <b>Utl %:99.49</b> |
| [5] 5936x1 [2] 3250x2 |                     |                     |              |                    |

|                |                     |                     |              |                    |
|----------------|---------------------|---------------------|--------------|--------------------|
| <b>Stock:1</b> | <b>Material:300</b> | <b>Length:12500</b> | <b>Qty:1</b> | <b>Utl %:99.49</b> |
| 5936x1         | 3250x2              |                     |              |                    |

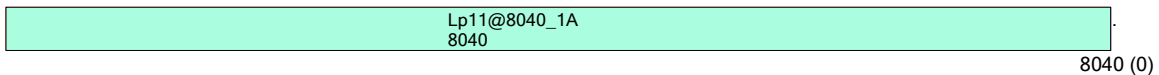


### Cut Details

| Cut No | Cut Position | Angle | Part No | Flipped | Rotated (180) |
|--------|--------------|-------|---------|---------|---------------|
| 1      | 5936         | 0     | 5       | 0       | 0             |
| 2      | 9186         | 0     | 2       | 0       | 0             |
| 3      | 12436        | 0     | 2       | 0       | 0             |

### Layout 10 of 24

|                |                     |                    |              |                     |
|----------------|---------------------|--------------------|--------------|---------------------|
| <b>Stock:5</b> | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:4</b> | <b>Utl %:100.00</b> |
| [Lp11@8040_1A] | 8040x1              |                    |              |                     |
| 8040x1         |                     |                    |              |                     |

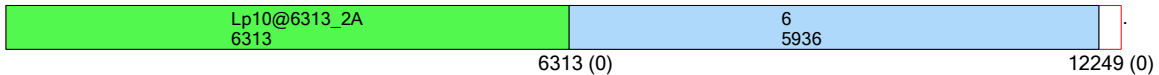


### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 8040         | 0     | Lp11@8040_1A | 0       | 0             |

### Layout 11 of 24

|                |                     |                     |              |                    |
|----------------|---------------------|---------------------|--------------|--------------------|
| <b>Stock:1</b> | <b>Material:300</b> | <b>Length:12500</b> | <b>Qty:1</b> | <b>Utl %:97.99</b> |
| [Lp10@6313_2A] | 6313x1              | [6]                 | 5936x1       |                    |
| 6313x1         | 5936x1              |                     |              |                    |



### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 6313         | 0     | Lp10@6313_2A | 0       | 0             |
| 2      | 12249        | 0     | 6            | 0       | 0             |

### Layout 12 of 24

|                |                     |                    |              |                    |
|----------------|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b> | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:1</b> | <b>Utl %:99.96</b> |
| [Lp9@4787_1A]  | 4787x1              | [2]                | 3250x1       |                    |
| 4787x1         | 3250x1              |                    |              |                    |



|                     |           |
|---------------------|-----------|
| Lp9@4787_1A<br>4787 | 2<br>3250 |
| 4787 (0)            | 8037 (0)  |

### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4787         | 0     | Lp9@4787_1A | 0       | 0             |
| 2      | 8037         | 0     | 2           | 0       | 0             |

### Layout 13 of 24

|   |                     |                    |              |                    |
|---|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b>                            | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:2</b> | <b>Utl %:99.90</b> |
| [Lp9@4787_1A] 4787x1 [Lp3@3245_1B] 3245x1 |                     |                    |              |                    |
| 4787x1 3245x1                             |                     |                    |              |                    |

|                     |                     |
|---------------------|---------------------|
| Lp9@4787_1A<br>4787 | Lp3@3245_1B<br>3245 |
| 4787 (0)            | 8032 (0)            |

### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4787         | 0     | Lp9@4787_1A | 0       | 0             |
| 2      | 8032         | 0     | Lp3@3245_1B | 0       | 0             |

### Layout 14 of 24

|   |                     |                    |              |                     |
|---|---------------------|--------------------|--------------|---------------------|
| <b>Stock:5</b>                            | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:2</b> | <b>Utl %:100.00</b> |
| [Lp9@4399_1B] 4399x1 [Lp3@3641_1A] 3641x1 |                     |                    |              |                     |
| 4399x1 3641x1                             |                     |                    |              |                     |

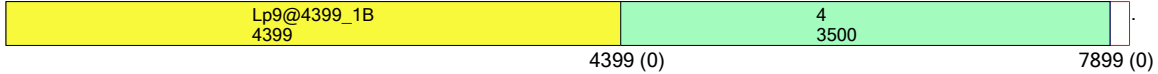
|                     |                     |
|---------------------|---------------------|
| Lp9@4399_1B<br>4399 | Lp3@3641_1A<br>3641 |
| 4399 (0)            | 8040 (0)            |

### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4399         | 0     | Lp9@4399_1B | 0       | 0             |
| 2      | 8040         | 0     | Lp3@3641_1A | 0       | 0             |

### Layout 15 of 24

|                                 |                     |                    |              |                    |
|---------------------------------|---------------------|--------------------|--------------|--------------------|
| <b>Stock:5</b>                  | <b>Material:300</b> | <b>Length:8040</b> | <b>Qty:2</b> | <b>Utl %:98.25</b> |
| [Lp9@4399_1B] 4399x1 [4] 3500x1 |                     |                    |              |                    |
| 4399x1 3500x1                   |                     |                    |              |                    |

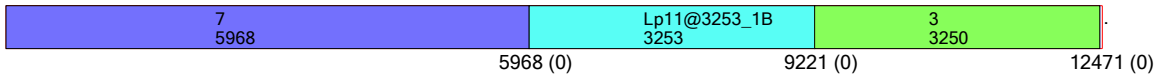


### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 4399         | 0     | Lp9@4399_1B | 0       | 0             |
| 2      | 7899         | 0     | 4           | 0       | 0             |

### Layout 16 of 24

| Stock:1    | Material:300          | Length:12500 | Qty:4 | Utl %:99.77 |
|------------|-----------------------|--------------|-------|-------------|
| [7] 5968x1 | [Lp11@3253_1B] 3253x1 | [3] 3250x1   |       |             |
| 5968x1     | 3253x1                | 3250x1       |       |             |

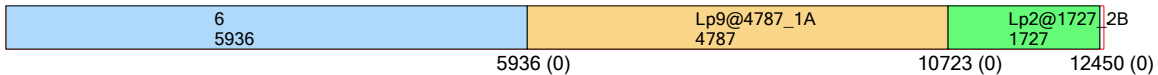


### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 5968         | 0     | 7            | 0       | 0             |
| 2      | 9221         | 0     | Lp11@3253_1B | 0       | 0             |
| 3      | 12471        | 0     | 3            | 0       | 0             |

### Layout 17 of 24

| Stock:1    | Material:300         | Length:12500         | Qty:1 | Utl %:99.60 |
|------------|----------------------|----------------------|-------|-------------|
| [6] 5936x1 | [Lp9@4787_1A] 4787x1 | [Lp2@1727_2B] 1727x1 |       |             |
| 5936x1     | 4787x1               | 1727x1               |       |             |

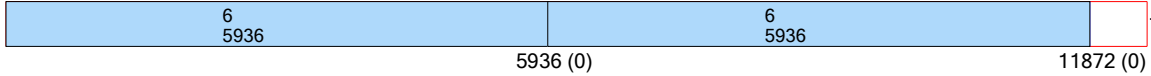


### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 5936         | 0     | 6           | 0       | 0             |
| 2      | 10723        | 0     | Lp9@4787_1A | 0       | 0             |
| 3      | 12450        | 0     | Lp2@1727_2B | 0       | 0             |

### Layout 18 of 24

| Stock:1    | Material:300 | Length:12500 | Qty:1 | Utl %:94.98 |
|------------|--------------|--------------|-------|-------------|
| [6] 5936x2 |              |              |       |             |
| 5936x2     |              |              |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No | Flipped | Rotated (180) |
|--------|--------------|-------|---------|---------|---------------|
| 1      | 5936         | 0     | 6       | 0       | 0             |
| 2      | 11872        | 0     | 6       | 0       | 0             |

### Layout 19 of 24

| Stock:5               | Material:300 | Length:8040 | Qty:1 | Utl %:38.84 |
|-----------------------|--------------|-------------|-------|-------------|
| [Lp10@3123_2B] 3123x1 |              |             |       |             |
| 3123x1                |              |             |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No      | Flipped | Rotated (180) |
|--------|--------------|-------|--------------|---------|---------------|
| 1      | 3123         | 0     | Lp10@3123_2B | 0       | 0             |

### Layout 20 of 24

| Stock:6                                   | Material:400 | Length:8040 | Qty:1 | Utl %:100.00 |
|---|--------------|-------------|-------|--------------|
| [Lp7@5868_1A] 5868x1 [Lp4@2172_1B] 2172x1 |              |             |       |              |
| 5868x1 2172x1                             |              |             |       |              |

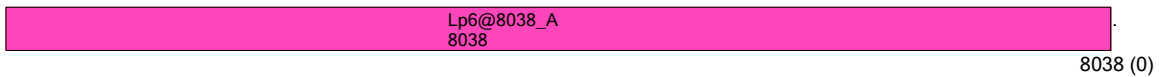


### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 5868         | 0     | Lp7@5868_1A | 0       | 0             |
| 2      | 8040         | 0     | Lp4@2172_1B | 0       | 0             |

### Layout 21 of 24

| Stock:6             | Material:400 | Length:8040 | Qty:1 | Utl %:99.98 |
|---------------------|--------------|-------------|-------|-------------|
| [Lp6@8038_A] 8038x1 |              |             |       |             |
| 8038x1              |              |             |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No    | Flipped | Rotated (180) |
|--------|--------------|-------|------------|---------|---------------|
| 1      | 8038         | 0     | Lp6@8038_A | 0       | 0             |

### Layout 22 of 24

| Stock:6                                   | Material:400 | Length:8040 | Qty:1 | Utl %:99.90 |
|---|--------------|-------------|-------|-------------|
| [Lp4@5164_1A] 5164x1 [Lp7@2868_1B] 2868x1 |              |             |       |             |
| 5164x1 2868x1                             |              |             |       |             |

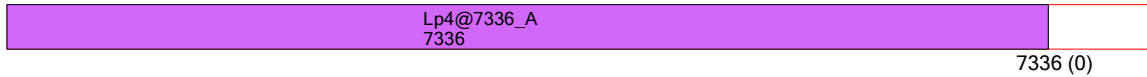


### Cut Details

| Cut No | Cut Position | Angle | Part No     | Flipped | Rotated (180) |
|--------|--------------|-------|-------------|---------|---------------|
| 1      | 5164         | 0     | Lp4@5164_1A | 0       | 0             |
| 2      | 8032         | 0     | Lp7@2868_1B | 0       | 0             |

### Layout 23 of 24

| Stock:6             | Material:400 | Length:8040 | Qty:1 | Utl %:91.24 |
|---------------------|--------------|-------------|-------|-------------|
| [Lp4@7336_A] 7336x1 |              |             |       |             |
| 7336x1              |              |             |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No    | Flipped | Rotated (180) |
|--------|--------------|-------|------------|---------|---------------|
| 1      | 7336         | 0     | Lp4@7336_A | 0       | 0             |

### Layout 24 of 24

| Stock:3             | Material:536 | Length:12500 | Qty:8 | Utl %:73.49 |
|---------------------|--------------|--------------|-------|-------------|
| [Lp8@9186_A] 9186x1 |              |              |       |             |
| 9186x1              |              |              |       |             |



### Cut Details

| Cut No | Cut Position | Angle | Part No    | Flipped | Rotated (180) |
|--------|--------------|-------|------------|---------|---------------|
| 1      | 9186         | 0     | Lp8@9186_A | 0       | 0             |

## Offcut/Drops List

| No. | From Stock | Size | Qty | Weight | Material |
|-----|------------|------|-----|--------|----------|
|-----|------------|------|-----|--------|----------|

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

| Section | Used Len | Used Wt | Scrap Len | Total Scrap Weight | Off Len | Total Offcut Weight |
|---------|----------|---------|-----------|--------------------|---------|---------------------|
| 252     | 20.54    | 20.54   | 2.168     | 2.168              | 0       | 0                   |
| 300     | 273.3    | 273.3   | 6.656     | 6.656              | 0       | 0                   |
| 400     | 32.16    | 32.16   | 0.714     | 0.714              | 0       | 0                   |
| 536     | 100      | 100     | 26.512    | 26.512             | 0       | 0                   |