**REF: http://www.eng-tips.com/viewthread.cfm?qid=337941**

**Optimized cutting of steel angles using EXCEL**

| STOCK DATA | ID | type | length | qty av | cost | qty us | unused |
|---|---|---|---|---|---|---|---|
| | S1 | A | 5000 | 150 | 1000 | 21 | 129 |
| | S2 | A | 6500 | 25 | 1050 | 25 | 0 |
| | S3 | B | 6500 | 100 | 1020 | 25 | 75 |
| | S4 | B | 5500 | 120 | 1000 | 0 | 120 |
| | | | | | overall cost | 72750 | |

| PRODUCT DATA | ID | type | length | qty rq | qty pr | pr - rq |
|---|---|---|---|---|---|---|
| | P1 | A | 2000 | 20 | 20 | 0 |
| | P2 | A | 2200 | 25 | 26 | 1 |
| | P3 | A | 3000 | 50 | 50 | 0 |
| | P4 | B | 2000 | 75 | 75 | 0 |
| | | | | waste | 32800 | |

| S1 | P1 | P2 | P3 | P4 | waste |
|---|---|---|---|---|---|
| **21** | **8** | **26** | **8** | **0** | **7800** |
| S101 | 2 | 0 | 0 | 0 | |
| | 4000 | 0 | 0 | 0 | 1000 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S102 | 0 | 2 | 0 | 0 | |
| | 0 | 4400 | 0 | 0 | 600 |
| 13 | 0 | 26 | 0 | 0 | 7800 |
| S103 | 0 | 0 | 1 | 0 | |
| | 0 | 0 | 3000 | 0 | 2000 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S103 | 1 | 1 | 0 | 0 | |
| | 2000 | 2200 | 0 | 0 | 800 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S104 | 1 | 0 | 1 | 0 | |
| | 2000 | 0 | 3000 | 0 | 0 |
| 8 | 8 | 0 | 8 | 0 | 0 |
| S105 | 1 | 0 | 0 | 0 | |
| | 2000 | 0 | 0 | 0 | 3000 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S106 | 0 | 1 | 0 | 0 | |
| | 0 | 2200 | 0 | 0 | 2800 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S107 | 0 | 0 | 1 | 0 | |
| | 0 | 0 | 3000 | 0 | 2000 |
| 0 | 0 | 0 | 0 | 0 | 0 |

| S2 | P1 | P2 | P3 | P4 | waste |
|---|---|---|---|---|---|
| **25** | **12** | **0** | **42** | **0** | **12500** |
| S201 | 3 | 0 | 0 | 0 | |
| | 6000 | 0 | 0 | 0 | 500 |
| 4 | 12 | 0 | 0 | 0 | 2000 |
| S202 | 0 | 2 | 0 | 0 | |
| | 0 | 4400 | 0 | 0 | 2100 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S203 | 0 | 0 | 2 | 0 | |
| | 0 | 0 | 6000 | 0 | 500 |
| 21 | 0 | 0 | 42 | 0 | 10500 |
| S203 | 2 | 1 | 0 | 0 | |
| | 4000 | 2200 | 0 | 0 | 300 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S204 | 2 | 0 | 0 | 0 | |
| | 4000 | 0 | 0 | 0 | 2500 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S205 | 1 | 1 | 0 | 0 | |
| | 2000 | 2200 | 0 | 0 | 2300 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S206 | 1 | 0 | 1 | 0 | |
| | 2000 | 0 | 3000 | 0 | 1500 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S207 | 0 | 1 | 1 | 0 | |
| | 0 | 2200 | 3000 | 0 | 1300 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S208 | 1 | 0 | 0 | 0 | |
| | 2000 | 0 | 0 | 0 | 4500 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S209 | 0 | 1 | 0 | 0 | |
| | 0 | 2200 | 0 | 0 | 4300 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S210 | 0 | 0 | 1 | 0 | |
| | 0 | 0 | 3000 | 0 | 3500 |
| 0 | 0 | 0 | 0 | 0 | 0 |

| S3 | P1 | P2 | P3 | P4 | waste |
|---|---|---|---|---|---|
| **25** | **0** | **0** | **0** | **75** | **12500** |
| S301 | 0 | 0 | 0 | 3 | |
| 25 | 0 | 0 | 0 | 6000 | 500 |
| 25 | 0 | 0 | 0 | 75 | 12500 |
| S302 | 0 | 0 | 0 | 2 | |
| 0 | 0 | 0 | 0 | 4000 | 2500 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S303 | 0 | 0 | 0 | 1 | |
| 0 | 0 | 0 | 0 | 2000 | 4500 |
| 0 | 0 | 0 | 0 | 0 | 0 |

| S4 | P1 | P2 | P3 | P4 | waste |
|---|---|---|---|---|---|
| **0** | **0** | **0** | **0** | **0** | **0** |
| S401 | 0 | 0 | 0 | 2 | |
| | 0 | 0 | 0 | 4000 | 1500 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| S402 | 0 | 0 | 0 | 1 | |
| | 0 | 0 | 0 | 2000 | 3500 |
| 0 | 0 | 0 | 0 | 0 | 0 |