Manufacturing Date:

5/20/10

**Manufacturing Plan for Manual Machining**

Material:

Aluminum

Quantity:

1

Part Number:

2-02

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Operation # | Machine Description | Operation Description | Tool Type | Estimated Time |
| 1 | Manual Mill | Face all sides to square | Facing End Mill | 30 |
| 2 | Manual Mill |  Mill L-shape | Rough End Mill | 30 |
| 3 | Manual Mill | Step drill .505" hole | 1/4" drill bit | 10 |
| 4 | Manual Mill | Step drill .505" hole | ½" drill bit | 5 |
| 5 | Manual Mill | Ream .505" hole | .505 Reamer | 5 |
| 6 | Manual Mill | Drill 2 thru all holes on top | .266 drill bit | 10 |
| 7 | Manual Mill | Countersink 1 hole on top | Ø.52x82° bit | 5 |
| 8 | Manual Mill | Counterbore 1 hole on top  | Ø.44 depth .25 | 5 |
| 9 | Manual Mill | Center/dowel pin drill | Ø.124 depth .3 | 5 |
| 10 | Manual Mill | Center/dowel pin ream | Ø.126 depth .3 | 5 |

Notes/drawings/setup sketch



**Tips:**

* Always adjust speed while machine is running
* Ream at half speed
* Edge finder is used at 1000 rpm
* Facing tool needs to be angled slightly

Part Description:

L-shape Block that fits into U-shaped block

Stock:

2x2x2 block

Part Name:

Top Block Part