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|  | STEP | OPERATION | FEATURES | TOOLS |
|  | 1 | Locate aluminium plate | Aluminium plate | Sketches, Marking out surface |
| Preparation | 2 | Smooth off abnormalities | Aluminium plate | Flat file |
|  | 3 | Wipe down working surface | Aluminium plate | Clean rag |
|  | 4 | Zero digital height gauge on surface | Aluminium plate | Digital height gauge |
|  | 5 | Mark centre line and hole locations (relative to centre) | Aluminium plate, Holes | Height gauge, Angle plate |
|  | 6 | Mark centre point | Aluminium plate | Ruler, Scribe |
| Marking out | 7 | Mark edges of plate to be cut to, and hole locations | Aluminium plate, Holes | Dividers, Ruler, Scribe |
|  | 8 | Mark hole centres and straight edges | Aluminium plate, Holes | Set square, Scribe |
|  | 9 | Centre punch holes | Holes | Scribe, Centre punch, Hammer |
|  | 10 | Position and stabilise plate | Holes | Vice |
|  | 11 | Equip 2.5mm pilot drill bit and set up drill | Holes | Drill |
| Drilling and Deburring | 12 | Drill pilot holes | Holes | Drill, Vice |
|  | 13 | Equip 5mm drill bit and drill through pilot holes | Holes | Drill, Vice |
|  | 14 | Equip countersink bit and deburr holes | Holes | Drill, Vice |
|  | 15 | Position plate and stabilise | Aluminium plate | Vice |
| Cutting and filing | 16 | Saw off edges | Aluminium plate | Vice, Hacksaw |
|  | 17 | Smooth edges to match markings | Aluminium plate | Vice, Flat file |
|  | 18 | Check that plate is square | Aluminium plate | Set Square |
|  | 19 | Position plate and stabilise | Aluminium plate | Vice |
| Chamfering edges | 20 | Chamfer edge of plate, repositioning for each edge. | Aluminium plate | Vice, Flat file |

**P04-Purple Workflow Diagram**