





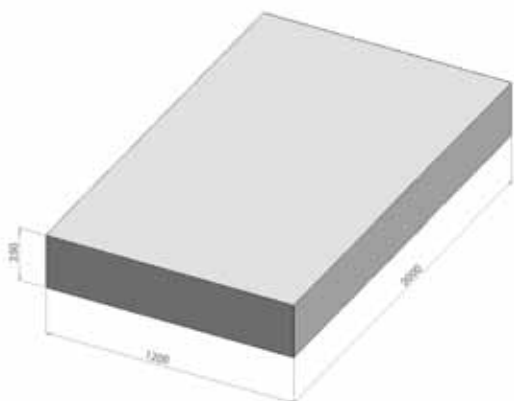
The process of high quality mould manufacture starts with good quality Tool Steel and accurate Bandsaw Cutting.

At UTP we offer top grade Tool Steel in Toolox 33, Toolox 44 and 1.2311. Toolox 33 and 44 are offered in thicknesses from 20 to 165mm and 1.2311 is offered up to 250mm ex stock. Block sizes up to 500mm can be supplied on request.

Precision Bandsaw Cutting is of paramount importance at UTP. That is why we rely on a Behringer Vertical Bandsaw capable of sawing plates up to 2500 x 1200 x 600 mm with a plate loading capacity of 3000Kg.



Plates are cut to a very high accuracy using the latest laser technology to check and correct the straightness of the cut. The deviation is less than 1mm on a 1000mm cut.



Maximum workpiece dimensions (mm):

1200mm x 2000mm x 600mm

Maximum mass per workpiece:

3000 Kg

Number of machines:

1 Vertical and 3 Horizontal



Plate Preparation - Horizontal Milling



Phase two of high-quality mould or plate manufacture is the horizontal machining stage. State of the art CNC and NC equipment specifically designed for the process is used to mill all plates to the required dimensions and tolerances.

Plates are milled in a 'dry' condition to remove all stresses remaining in the plate after the cutting process.

Horizontal Milling is of paramount importance at UTP, that is why we rely on a SNK CNC milling machines capable of milling plates up to 3000 x 1600 x 600 mm with a plate loading capacity of 5000Kg.



Maximum workpiece dimensions (mm):

3000mm x 1600mm x 600mm

Maximum mass per workpiece:

5000 Kg

Number of machines:

4 Horizontal machines







Precision is of crucial importance at UTP, that is why we rely on four Precision Surface Grinders to grind all our machined plates to the exact tolerances specified. Surface roughness is within $0.8 \mu\text{m}$ and flatness of opposing surface within 0.02mm .

- **Precision Surface Grinders**

 - PFG 1202000

 - Travel: 1200mm x 2000mm x 800mm

- **Precision Surface Grinders**

 - PFG 751500

 - Travel: 750mm x 1500mm x 600mm

Maximum workpiece dimensions (mm):

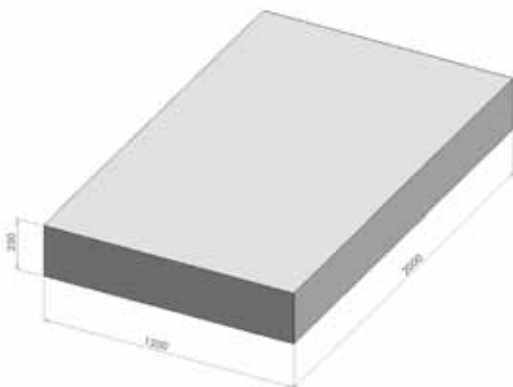
1200mm x 2000mm x 800mm

Maximum mass per workpiece:

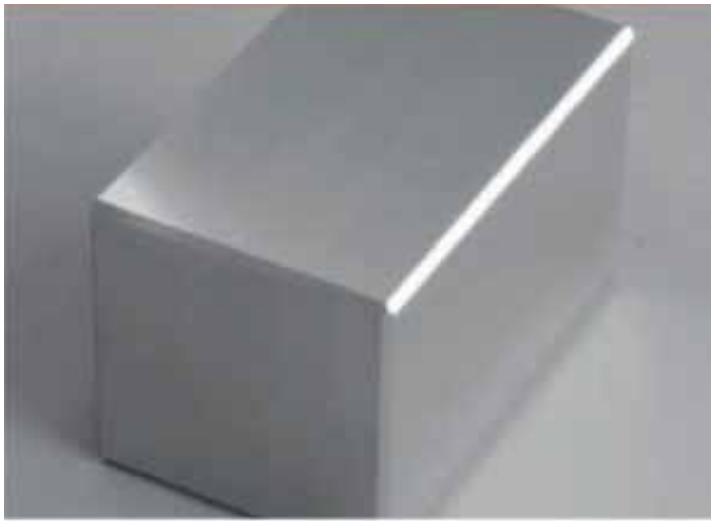
3000 Kg

Number of machines:

4 Horizontal Surface Grinders

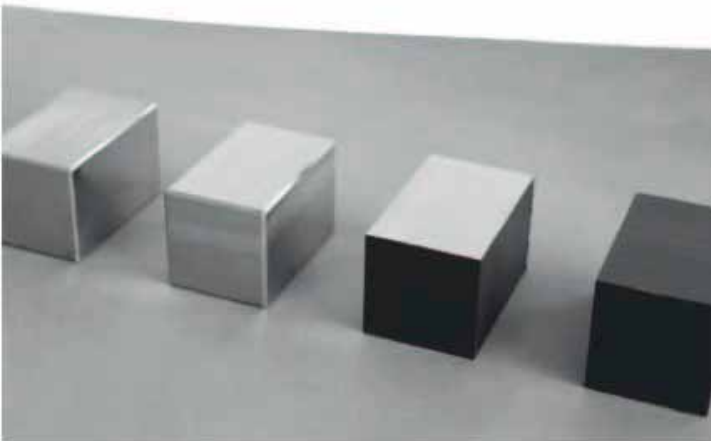






Progression Press Tool Dies usually require dozens of steel blocks to make up the complete tool. UTP offers its customers outstanding quality and service in preparing these blocks to the required accuracy. To achieve this machining accuracy, UTP makes use of a specialized squaring machine capable of machining four sides in one setting.

When milling four sides of a workpiece, conventional systems machine all four surfaces, one-by-one, whilst the operator is required to man the machine through four set-up processes. By contrast, the specialized machine utilised at UTP has a more automated process, operating with a rotating table, which machines three sides of the work-piece in a single operation.



Customers can select exactly how they want their blocks to be machined and the required accuracy. Two, Four or Six sides can be milled within a tolerance of 0.05mm.

Very high tolerance Block Inserts can also be ground on all sides ensuring a tolerance of 0.02mm in parallelism and perpendicular.

Optional Chamfers can be added as per customer request.

All commonly available steels can be machined and include: Mild Steel, Tool Steel and Aluminium.



Maximum workpiece dimensions (mm):

1200mm x 2700mm x 800mm

Maximum mass per workpiece:

2000 Kg

Number of machines:

4 Horizontal Squaring Machines