



Punch Manufacturer for Turned & Cold Headed Fasteners

Cutools is a punch and form tool specialist for the nut and part forming industries. We specialise in manufacturing custom made forming and extrusion punches, to customers' specifications.

Product Range

We have gained vast experience in manufacturing the following custom made punches: -

- Extrusion and Forming punches
- Piercing punches
- Pilot punches
- Stepped punches
- Ejector punches
- Knock out pins



Forms

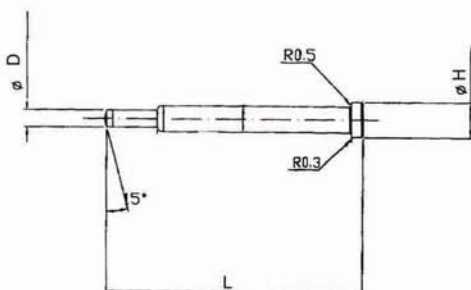
Our CNC dressing machines can manufacture the most complex forms. We programme customer's forms onto our machines, without passing any additional design cost onto them. However, we do **not** regard ourselves as the most competitive for licensed punches, such as the Torx® range.

Please note: we are not at liberty to show sample drawings of some of the specialist forms that we have manufactured due to contractual terms.

Standard Capacity

We have the flexibility and capacity to fulfil customer's smaller batches, such as quantities below 100. We currently produce 3000 – 4000 punches weekly, which comprises of several batch jobs of various sizes.

Below, is a sketch of a standard punch and a table illustrating the sizes of the punches we manufacture.



| | Minimum Size | Maximum Size | Tolerance Accuracy* |
|-------------------|--------------|--------------|---------------------|
| Diameter 'H' (mm) | 1.00 | 30.00 | +0.00 - 0.01 |
| Diameter 'D' (mm) | 1.00 | 30.00 | +0.005 - 0.00 |
| Length 'L' (mm) | 20.00 | 150.00 | +0.05 - 0.00 |

* These are our standard tolerances; tighter tolerances can be met

Please Note: Although our plant currently holds the capacity stipulated above, we will endeavour to meet individual needs. Cutools has acquired minority shares, and formed strategic partnerships with various quality suppliers, within the UK and Far East. Therefore, we are happy to quote you for all your cold forming tool needs.



Processes

Material

We manufacture punches using various High speed steels and source material from approved suppliers only. Common materials requested by current customer's are displayed in the table on the right.

Coatings

Punches may be coated for extra durability. Most punches are coated using Physical Vapour Deposition (PVD), such as: -

Titanium Nitride (TIN) - is an excellent general purpose coating for punches and dies to protect your tools from wear. TIN is a good choice for wear parts requiring resistance to abrasive and adhesive wear.

Titanium Carbonitride (TICN) - is a high performance coating for forming and punching tools that encounter excessive mechanically stressed cutting and forming edges, and where high speed and feed rates are required.

| Material Specification (UK) | Material Specification (Germany) |
|-----------------------------|----------------------------------|
| M2 | 1.3343 |
| M42 | 1.3247 |
| ASP23 | 1.3344 |
| ASP30 | - |
| ASP60 | 1.3241 |

Heat Treatment

All punches are hardened depending on drawing specifications and the material used.

The hardness usually ranges from 58-68 HRc, double or triple tempered and stress relieved.

Components Produced using Punches

Our punches are mainly used in Cold heading & nut forming machines. Customers utilise our tooling in their machines to manufacture the following products: -

- Bolts & screws
- Nuts
- Blind bolts
- Blind rivets, blind rivet nuts, shoulder rivets
- Tubular and semitubular rivets
- Threaded fasteners and parts
- Cold formed and extruded parts
- Lockbolt pins and collar fasteners
- Specialised fasteners



Please note: this is not a comprehensive list and we will gladly quote for any of your customised tooling requirements.

Reduce Costs by Purchasing Longer Lasting Tools