



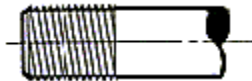
## Innovative Tool Sales

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### Technical Support Page

## SHANK TYPES

- Primary purpose to transmit torque and axial forces.
  - Simple tool change.
  - Good concentricity - without run-out.
  - Good stability against lateral forces.



**Screwed parallel shank (Clarkson shank)**

- Suitable for use in Clarkson chucks.
- Tool turns clockwise and right hand thread on shank tightens tool to holder and avoids tool being pulled from chuck.



**Plain shank**

- Suitable for use with collets.
- Increased wear on tool may cause tool being pulled from collet.
- Flexibility of placement in tool holder.



**Taper shank**



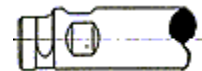
**Weldon shank**

- The tightened screw on flat shank secures the tool from being pulled out of holder.



**Whistle notch parallel shank**

- The tightened screw on tapered notch secures the tool from being pulled out.



**Combination shank**

- Used on large diameter end mills, special groove surrounding shank avoids tool galling during installation - the tool is secured in place with 2 screws on grooves.