



## **TEC "POWERPULL" BAR PULLER**

**SPECIALIST DESIGNERS  
MANUFACTURERS & SUPPLIERS**

The "Powerpull" bar puller is for use on CNC and Automatic lathes with a tool turret which takes interchangeable tools. It is designed to pull back bar stock and tube into position for machining, thus allowing unmanned operation between bar changes.

The "Powerpull2 is a two jaw lever chuck with variable tensioning jaws which will cater for most types of material.

### **OPERATING INSTRUCTIONS**

1. Bar stock is initially fed by hand through the machine's hollow spindle to a fixed stop. The bar is then clamped by the spindle mounted chuck or collet and the machining sequence completed. After parting off the finished component, approximately 25mm (1 inch) of bar stock should be protruding for the "Powerpull" to grip.
2. The "Powerpull", mounted in the turret, is brought towards the head stock and the jaws of the "Powerpull" are forced over the bar end protruding from the spindle chuck.
3. The spindle chuck is then unclamped and the turret retracted to a predetermined stop position. The spring loaded jaws of the "Powerpull" will grip the bar and pull it through the machine spindle as the turret retracts.
4. The spindle chuck is then re-operated to clamp the bar and the turret withdrawn further to release the "Powerpull" jaws.
5. The bar is ready for the machining process to be repeated.

### **ADJUSTMENT**

1. The "Powerpull" comes with one pair of reversible top jaws

#### Gripping Diameters for the ER04 model:

Position one is for bar diameters 6-36mm.

Position two is for bar diameters 35-64mm.

#### Gripping Diameters for the ER06 model:

Position one is for bar diameters 6-60mm.

Position two is for bar diameters 50-90mm.



Certificate No. 2227/00

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2. The appropriate position of the top jaws should be chosen for the diameter of the bar being machined.
3. The gripper jaws should be positioned on the "Powerpull" so that the distance between their grip points or faces is approximately 6mm (1/4 inch) smaller than the diameter of the bar. The distance between the grip points/faces should never be more than 9mm (3/8 inch) smaller than the bar diameter otherwise the jaws will not open sufficiently wide enough to grip the bar and damage may occur. The amount that the distance between the grip faces is smaller than the bar diameter attributes to the gripping force of the jaws on the bar stock. The smaller they are set up to the maximum given, the greater the grip force attainable.
4. The grip force may be adjusted as required by slackening off the lock nuts at the rear of each "Powerpull" base jaw and by turning grub screws either clockwise or anti-clockwise as desired. The pressure adjusting grub screws should only be tightened until flush with the top of the lock nut, the lock nut should then be retightened before use. The operating grip force should be just enough to reliably pull the bar material through the spindle when the spindle chuck is unclamped. Greater force than this just shortens the life of the "Powerpull" gripping jaws and their tensioning spring.

### MAINTENANCE

The "Powerpull" is supplied fully greased, but after every 100 hours (2 weeks) of continuous use, a little light lubricating oil should be applied between the base jaws and the body of the "Powerpull"

### REPLACEMENTS

All components of the "Powerpull" can be replaced separately should this be necessary, please quote part number. Special jaws can also be designed and manufactured to suit unusual applications.



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