

# Turning excellence!



## ETP ECOGRIP

### - hydraulic clamping sleeve for boring bars

The ETP ECOGRIP clamping system is excellent for boring bars for internal and external turning as well as driven toolholders. With the one screw fix system it is quick and easy to handle. The clamping is uniform around the tool and therefore the tool life is improved. As shown in the example below, the ETP ECOGRIP clamping system absorbs and reduces vibration, improves surface quality and best of all increases your productivity!



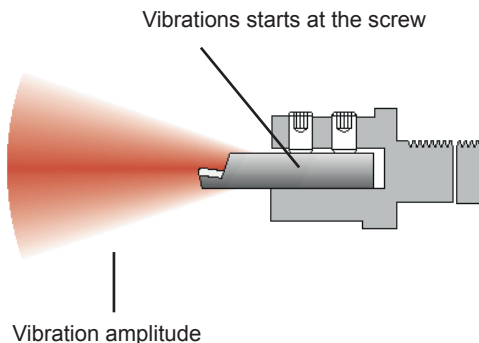
Machining data Machine: ACE CNC turning centre	
Operation: Finish boring Boring bar overhang of >L/D=5 Dia = 12 mm Out stick = 45 mm	
Competitor solution - Screw type sleeve	ETP ECOGRIP hydraulic sleeve
Vc = 50 m/min	Vc = 50 m/min
Fn = 0.03 - 0.06 mm/rev	Fn = 0.03 - 0.06 mm/rev
Ap = 0.035 mm (2 passes)	Ap = 0.035 mm (2 passes)
Taper = 0.05 mm	Taper = 0.02 mm
Ovality = 0.02 mm	Ovality = 0.005 mm

### Results:

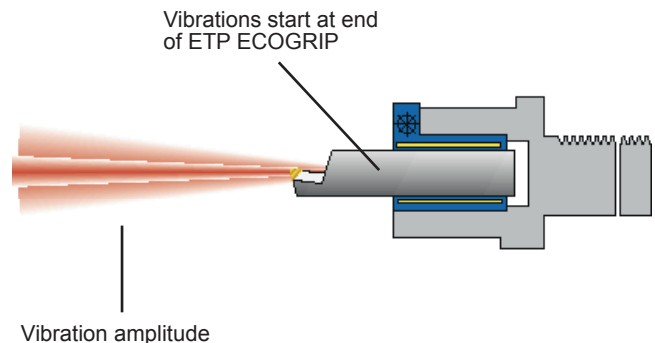
Productivity improvements by changing boring bar holder

With the ETP ECOGRIP hydraulic clamping sleeve the taper and ovality quality and consistency was improved by more than 100%. Chattering was also considerably reduced.

### Screw type sleeve



### ETP ECOGRIP hydraulic sleeve



The vibration amplitude is greatly reduced by the uniform clamping around the boring bar. ETP ECOGRIP expands towards **both** the boring bar and the tool holder.