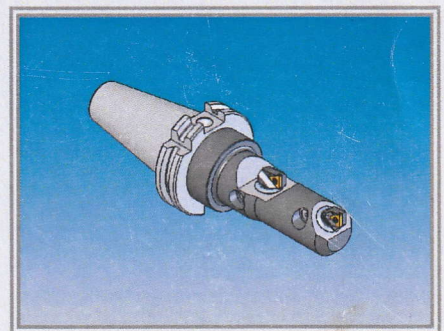
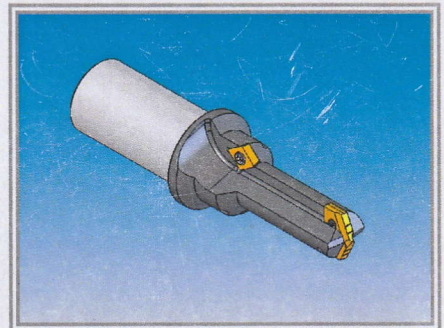
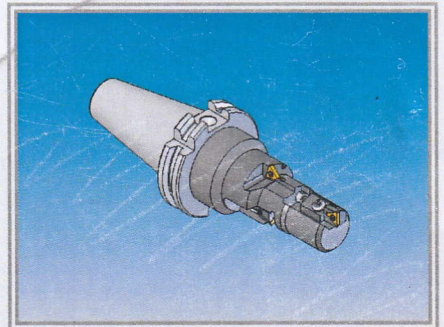


microbore[®]



CUSTOM DESIGNED TOOLING

MICROBORE TOOLING SYSTEMS LTD

Whitacre Road Industrial Estate, Whitacre Road, Nuneaton, Warwickshire CV11 6BX.

Tel: +44 (0) 24 7637 3355 Fax: +44 (0) 24 7637 3322

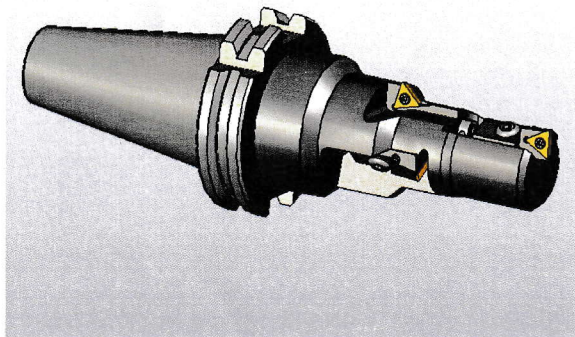
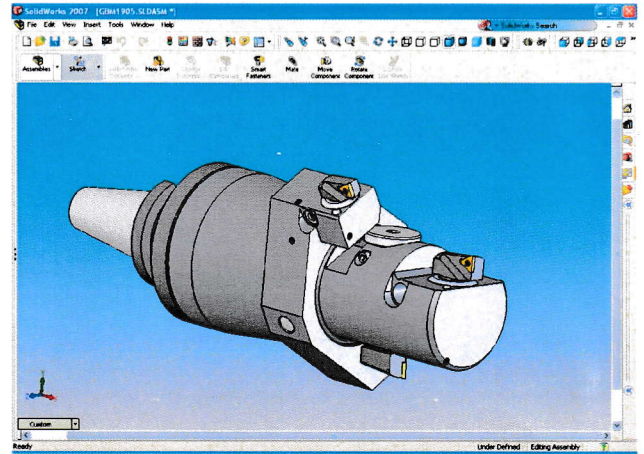
E-mail: sales@microbore.com



Introduction

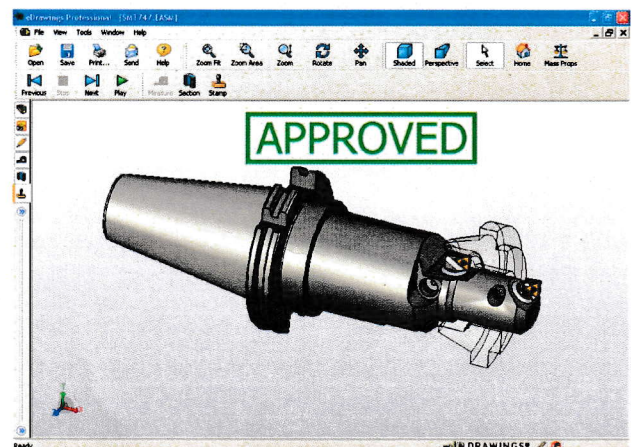
For over 40 years Microbore® have been designing and manufacturing bespoke tooling to meet the individual requirements of customers whilst offering full technical support and advice. A tradition that continues today.

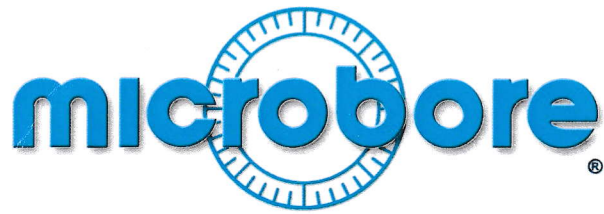
In the past 5 years Microbore Tooling Systems has made considerable investment in the design department and can now offer full 3D modelling of tools using the very latest design software.



Microbore Tooling Systems Ltd. not only specialise in producing bespoke custom tooling utilising our well known micro adjustable units and gear adjust units, but can also incorporate I.S.O. cartridges, fixed indexable insert pockets and stick tools to ensure that every design is produced without compromise and as efficiently and economically as possible.

Using Solidworks eDrawings® Microbore's design engineers can now e-mail 3D models or assembly drawings directly to customers for feedback or design approval without the need for any downloading of special software.

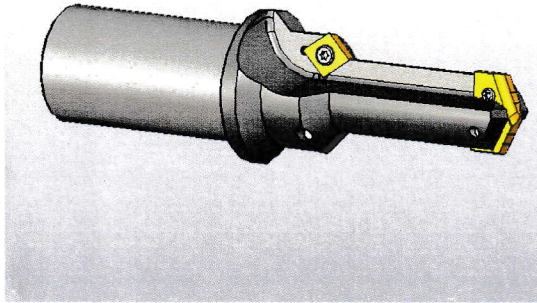




Specials by Category

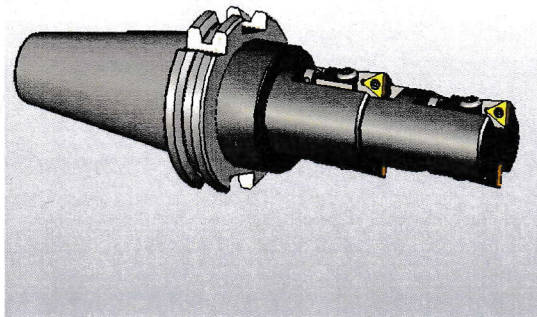
Special Step Drills

Microbore can produce custom step drills for chamfering, drill/counter boring operations and drill/chamfer operations.



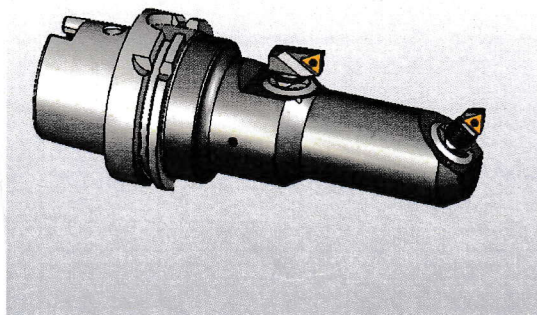
Special Semi-Finish Boring Tools

Depending on the tolerances of the finished bores; Microbore can produce semi-finishing tools with either fixed insert pockets or adjustable ISO cartridges.



Special Finish Boring Tools

Microbore can produce single point finish boring tools utilising Microbore's own ISO cartridges, 'CM' build-in units, micro adjustable units or gear adjust units where tolerances of less than 25µm are required. Microbore's gear adjust 'GA' units have diametrical adjustment within 2µm.

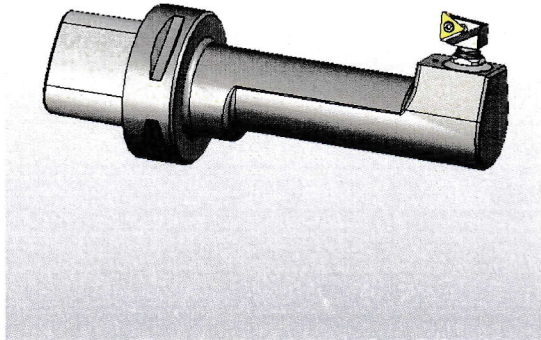


All tools will be designed with through coolant where possible.

Specials by Category

Back Boring Tools

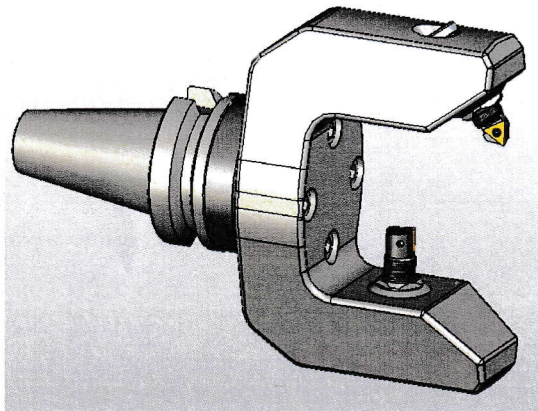
Back boring tools can either be produced as roughing/semi-finishing tools using fixed insert pockets or specially designed stick tools or as finishing tools. Depending upon the required tolerance the finishing tools will utilise either standard micro adjustable units or gear adjust units.



Over-Turning Tools

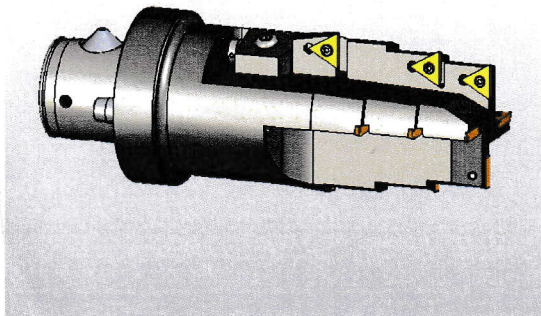
Over-Turning tools are most commonly used for overturning components with spigots or external diameters, on machining centres. This removes the need for long set-up and op times associated with turning on face plates.

Can be produced for roughing/semi-finishing or finishing operations.

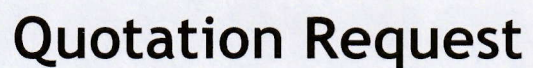


Combination Boring Tools

Combination tools combine roughing, semi-finishing and finishing operations into one tool where the application permits. These tools are longer in length than usual so therefore require clearance behind the bore being machined.



All tools will be designed with through coolant where possible.



Name		Company	
Tel.		Fax No.	
E-mail:		Job Title	
Part No.		Drg. No.	
Material		No. Parts	

Feature	Dia. 1	Tolerance	Dia. 2	Tolerance	Dia.3	Tolerance	Notes
Size							
Unit Type							
Insert Type							

Sketch outline of tool requirements
& Attach component drawing.

Machine Details	CNC	Manual	Taper	Size	Notes			
Horiz. M/C Centre			BT					
Vert. M/C Centre			DIN69871					
Jigmill			ISO2080					
Horizontal Borer			F.C.					
Vertical Borer			Straight					
Other			Other		Coolant Type	A	B	FLOOD