

BORE FINISHING



Precision Honing

BORE FINISHING

TURBO CHARGER BEARINGS

This application is an example of how the Single-Pass process has been fine-tuned for a specific industry to achieve Tremendous results in production. Turbo Charger Bearings are now being finished to tighter precision requirements with greater statistical process control than ever before, while reducing overall costs at the same time. Pre-set diamond tooling in some cases exceeds 250,000 parts. The Engis system also allows for quick change-over between model types with minimal operator involvement.

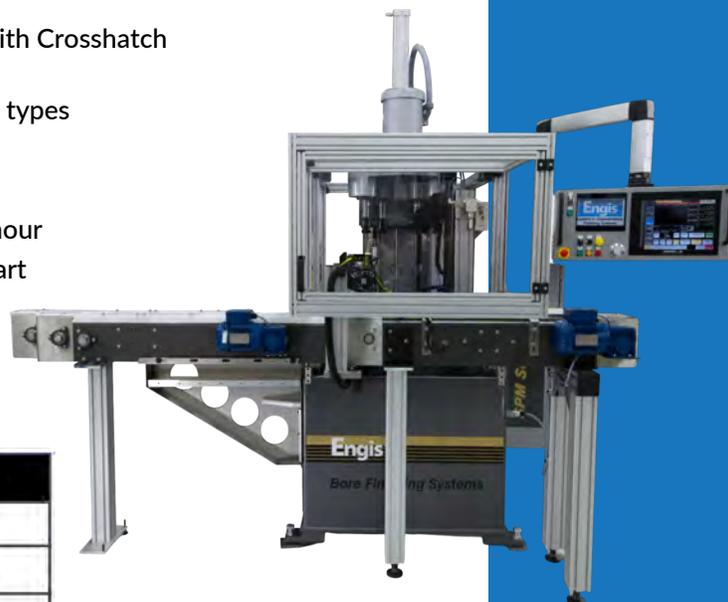
INDUSTRY: Automotive

MATERIAL: Bronze

- CHALLENGE:**
- Inconsistent bore geometry
 - Slow change-over
 - High down-time
 - High perishable tool cost
 - Unable to achieve required surface finish



- ENGIS ADVANTAGE:**
- Improved Bore Size
 - Achieved special surface finish with Crosshatch Pattern
 - Quick change-over between part types
 - Little to no down-time
 - Turnkey Automated System
 - Production Rate: 300 parts per hour
 - Tool cost <\$0.004 per finished part



BORE QUALITY	REQUIRED	ACHIEVED
SIZE	+/- 0.001mm	<0.001 mm
ROUNDNESS	0.002mm	<0.001 mm
STRAIGHTNESS	0.002mm	<0.0005 mm
Rpk	< 0.25	0.10
Rk	<0.70	0.35
Rvk	0.20 to 0.80	0.50



World Leader in Superabrasive Finishing Systems



Lapping & Polishing



Superabrasive Tools



Bore Honing Systems



Engis® offers state-of-the-art technology in the design of flat lapping systems that meet the most demanding requirements.

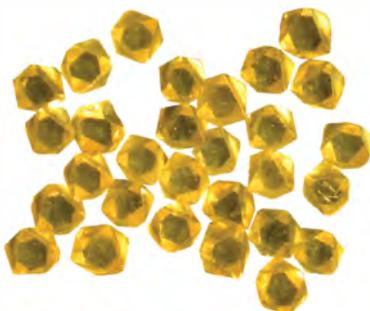


We offer a complete range of superabrasive electroplated products for precision applications.



Multi-Stroke Honing, Single-Pass Bore Finishing & Single-Pass Dual Bore Finishing Systems, Complete Machine Design, Tools & Process Development

Superabrasive Powders



We manufacture high-quality micron diamond & CBN with properties that ensure consistent performance in each application

Mold & Die Polishing



Engis® long trusted brands include Five-Star® diamond compound.

Engis Global Presence



US Engis Corporation



Engis of Canada, Ltd.



Engis-Japan Co., Ltd.



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