

Thrust Button Carbides

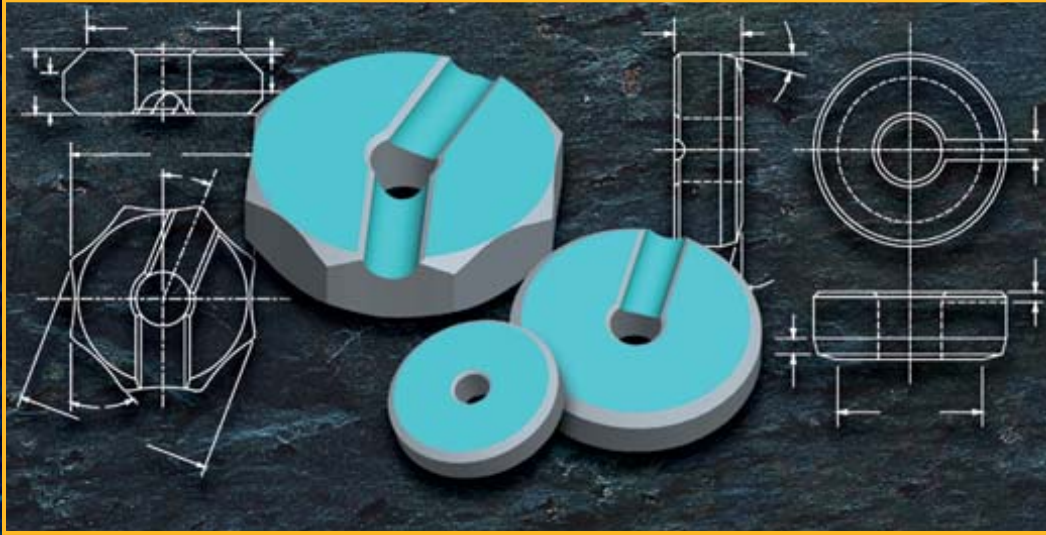


Thrust Button Features & Benefits

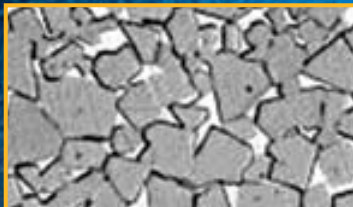
Firth Sterling manufactures tungsten carbide thrust buttons as a durable replacement for hardfaced and ground steel bearings in thrust surface areas. In order to fully utilize a tungsten carbide rockbit's long cutting life, these thrust inserts provide the maximum attainable bearing life. For larger bits, a tungsten carbide thrust button becomes a very important and necessary feature to enhance the life expectancy of the bit.

- Firth Sterling presses our thrust buttons on specially designed, state-of-the-art robotic presses for precision size control.
- Thrust buttons can be supplied unground or top & bottom ground to fit the most exacting design requirements.
 - For use in highly abrasive and difficult applications, thrust buttons are a low cost and highly effective alternative to hardfacing or other coatings.
 - Thrust buttons promote maximum bearing life in high performance button bits.
 - Thrust buttons can be engineered for use in any existing rockbit design.
- Firth Sterling manufactures our thrust buttons from carbide grades designed for maximum abrasion resistance and wear.
 - Standard sizes and configurations are available.

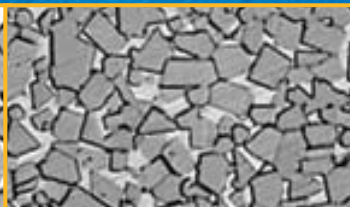
Thrust Button Specs



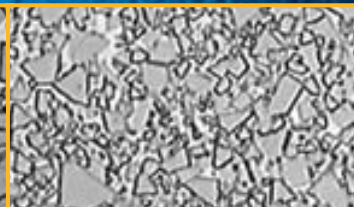
Grade	Rockwell "A" Hardness	Binder Content	Grain Size (Microns)	Typical TRS (PSI x 10 ³)	Abrasion Resistance (1/vol loss)	Fracture Toughness (DCB)
231	87.8	10%	Coarse	450	4.7	15,000
241	88.5	10%	Medium	450	5.2	12,400
MPD2C	88.2	11.5%	Medium	420		



1500X Magnification of Grade 231 Carbide



1500X Magnification of Grade 241 Carbide



1500X Magnification of Grade MPD2C Carbide



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