

Internal Gear Grinding



Part Data

Work Piece: Gear
Operation: ID bore grinding
Material: 8620
Hardness: 58-62 Hrc

Wheel Data

Size: 2" x 2 1/2" x 7/8"
Hermes Spec: TKR 80 K8 V53 HZ
Competitors Spec: 53A 80 K VBE

Truing Data

Dressing Device: Rotary diamond disk

Machine Data

Weldon Internal grinder

Process Parameters:

Competitor baseline was 1 part per dress. Hermes optimized cycle equaled dressing every 4 parts with 60 ipm grinding oscillation of the wheel. Process parameters used for dressing: 0.83" unidirectional roll rotation @ 2303 SFM, 15.6 ipm dressing feed rate or 0.003" infeed per revolution, which provided 4 overlaps. 2757 SFM wheel speed using the diamond disk infeed of .0006", diamond disk nose radius of 0.030" effective width based on infeed of 0.0118". Hermes product provided a process improvement and established a stable process.

BCH12



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