Internal grinding refers to the grinding of bores or holes. Applications range from very rapid removal of stock to processes capable of generating size and concentricity measured in millionths of an inch.

For all other stock 3” and larger diameter wheels consult our Vitrified Toolroom offering. See the VFL Fast Track Program described in the “FastTrack Service” section. For other competitively priced non-stock intermediate wheel sizes, see Norton Company’s First Line VFL ID and Race Wheels availability booklet, Form #6981.

**TYPICAL APPLICATIONS**
- Bore grinding
- Jig grinding

**TYPICAL MACHINES**
- Bryant
- Brown & Sharpe
- Heald
- Okuma
- Tripet
- UVA
- Okamoto

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**Features and Benefits**

**FEATURES**
- Sharp monocrystalline grain

**BENEFITS**
- For all steel: moderate to heavy feeds
- Form holding on complex parts
- Reduced dress compensation versus conventional aluminum oxide

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### 1/2” THROUGH 3” DIAMETER

**Type 05 Recessed One Side**

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<tr>
<th>SIZE</th>
<th>MAX. RPM</th>
<th>MIN. QTY.</th>
<th>SPEC</th>
<th>UPC NO.</th>
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**Recommended Work Speeds**

A work speed of 150 – 200 SFPM is recommended for most applications.

**RECOMMENDED WHEEL SPEEDS**

5000 – 6500 SFPM  General Applications
6500 – 12000 SFPM  Production Applications

**SFPM = Diameter (inches) x RPMs x .262 (constant)**

**Feed Rates**

Feed Rates vary by materials and machine condition. A good starting point is .0005” per pass.

**Wheel Size**

Wheel diameter should be 2/3 to 3/4 of the hole diameter to be ground.

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**Dressing**

- For the best finish, use 1/5 carat B quality, single point diamond tools.
- Choose a lead between .006” – .012” per wheel revolution.
- Remember to rotate the tool frequently to maintain a sharp point.
- To calculate traverse rates of the dressing tool, use this formula:
  
  Speed of Wheel (RPM) x Choice of Lead = Traverse Rate per Minute