



Established 1888

*The*  
**INDUSTRY  
LEADER**  
*in Flywheel  
Grinders!*

# FG5000 & FG10,000 Flywheel Grinders

## The First— and Still the Best— Flywheel Grinders

- The best return on your investment — earn more per hour of use
- Fast set up and easy to operate
- Achieve precision results every time
- Exclusive solid cast table support means no deflection
- Direct drive table — no belts or chains
- Most productive and rugged flywheel grinders available

# An FG grinder could be the most profitable machine you ever own!

## Three models available:

- **Standard Machine** (FG5000) with Manual Downfeed
- **PowerHead** (FG5000 and FG10,000) with PowerHead Up/Down to Flywheel and Manual Downfeed
- **PowerHead with AutoGrind™** (FG5000 and FG10,000) with PowerHead Up/Down to Flywheel and Automatic Grind to Pre-set Depth

*Standard FG5000 with Manual Downfeed (shown)*



*Electrical Components are recessed behind the side panel (above) and protected from the shop elements.*

*PowerHead FG10,000 with AutoGrind™ (shown)*



*Standard 9.5 Gallon Internal Coolant Tank is easily accessible. It completely slides out the front door for easy emptying. The coolant pump is removable for easy cleaning.*

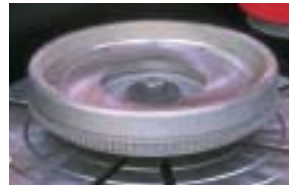
## FG5000 & FG10,000 features

- Exclusive, rugged base casting with cast-in table support.
- Unlimited grinding pressure is possible — *with no table deflection.*
- Oil reservoir with Optomatic Oiler gives constant column/table support lubrication.
- Thrust bearings or anti-friction material (which require field service) are *not* used.
- Direct Table Drive — *No chains or belts to adjust or replace. Consistent torque to table.*
- AutoGrind™ — Easy to set, easy to use, increases productivity... *and is reliable.*
- Double Cam Head Swivel Lock for positive head lock — *lubricated for ease in swiveling.*
- Our Flywheel Grinders are made larger, stronger, heavier, longer lasting — *and they have more features.*

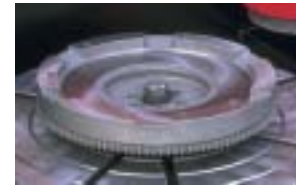
## FG5000 & FG10,000 benefits

- Grind your own flywheels... Finish the job fast... *Keep all the profits!*
- Set-up is extremely fast and accurate.
- Grind most automotive and light truck flywheels floor to floor in 5–10 minutes (slightly longer for the heavy duty stepped flywheels).
- The FG's cost just a few dollars per day to own, take up very little floor space and will last for many years. *The FG's are an excellent investment!*

## The most versatile grinder on the market!



Automotive Stepped Flywheel



Import Stepped Flywheel



Racing Clutch Components



Center Plate



Truck Flat Flywheel



Heavy Duty Truck Stepped Flywheel

- Supply costs are minimal and labor costs are low because a skilled machinist is *not* needed to operate the Van Norman flywheel grinders.
- It is the easiest machine to operate in your shop.
- If you're currently sending flywheels out, or machining them on a brake lathe... *you need a FG5000 or FG10,000 Flywheel Grinder!*

## Exclusive FG10,000 design

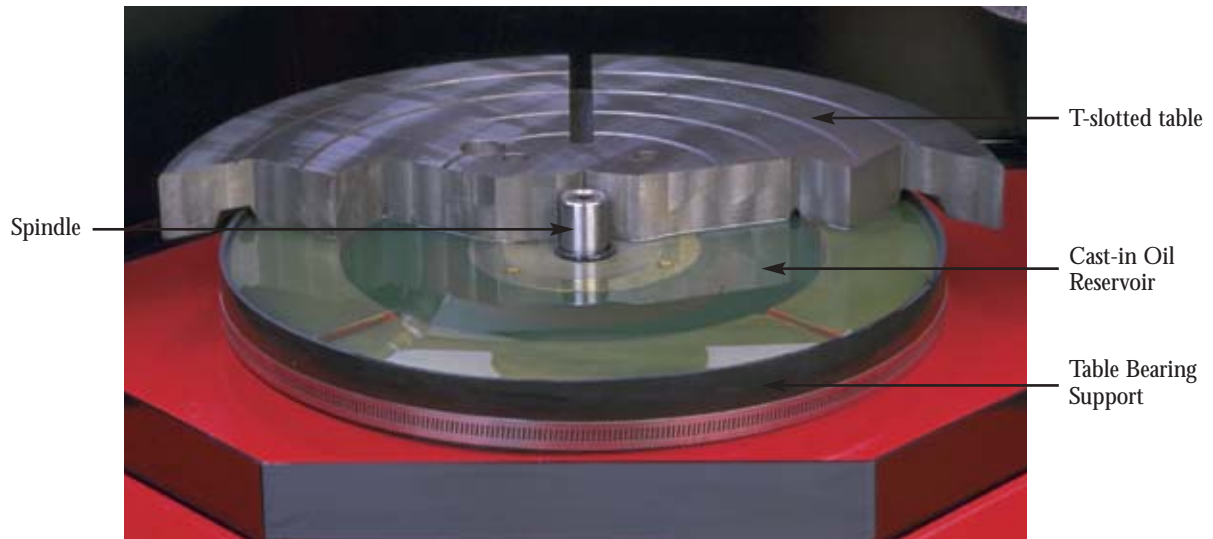
The FG10,000 was designed specifically for a 10 horsepower application — *NOT a 10 hp motor hung on a 5 hp machine!*

### FG10,000 features:

- Larger column flange
- Larger 5.5" diameter column, with massive thick wall
- Larger motor flange
- Increased vertical head travel/clearance to 10.5" — the most clearance in the industry!
- Increased machine weight — 200 lbs heavier

## Designed for ease of operation and the convenience to the operator



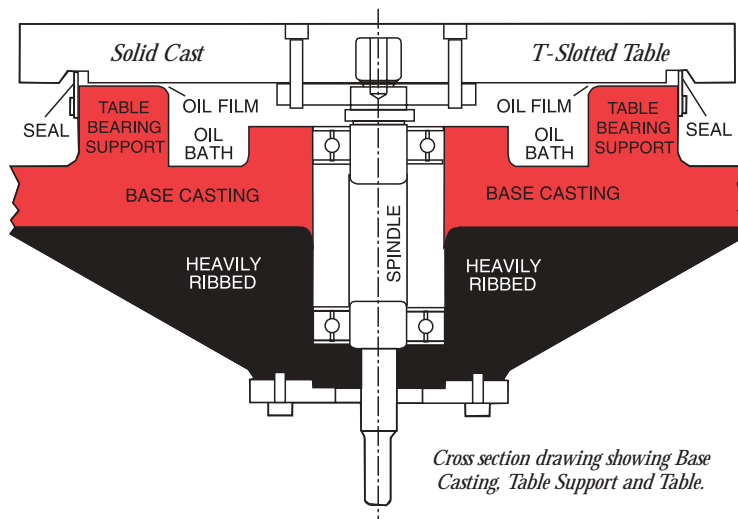


# The unique design of the FG's ensures ease-of-use and longevity.

## Rugged Cast Bearing supports 18" table

- Solid Cast Table (cut-a-way photo above) shows the Oil Reservoir, the Oil Film and the Table Bearing Support. *The table rotates on the cast bearing support that prevents any deflection regardless of the flywheel size and weight, or grinding pressure.*
- The oil level is set 1/16" above the Table Bearing Support for constant lubrication. The oil level is maintained at all times by the Optomatic Constant Oiler.
- There is absolutely no downward or sideward pressure on the spindle or spindle bearings — they merely “drive & guide” the table. *If the table was only supported by the spindle and spindle bearings, they would be “wiped out” by the downward pressure required for grinding (see cross section illustration below).*

- No costly thrust bearings used for support
- Unlimited grinding pressure
- No anti-friction material required
- Grind within closer tolerances
- No field service required on the table



Cross section drawing showing Base Casting, Table Support and Table.



**The FG's plunge grind fast & accurately.  
Hard spots and heat checks are NOT a problem!**



*Resurfaced flywheel with a "swirl finish".*



*Resurfaced flywheel with the alternate "crosshatch" pattern.*

*Hard spots? Heat checks? No problem. The entire friction surface is ground at once, assuring fast, accurate results every time. Plunge grinding produces a "swirl finish", or a "cross hatch finish", if preferred. Also, the operator has total control over the surface finish — the longer the sparkout, the smoother the finish.*

**Grinding head tilt can be adjusted for precision results**

*The grinding head assembly is set at the factory with a .023" rear tilt of the grinding wheel and the side to side setting of .000" for the fastest grinding and the best surface finish. The head tilt can be set flatter for even greater grinding precision.*



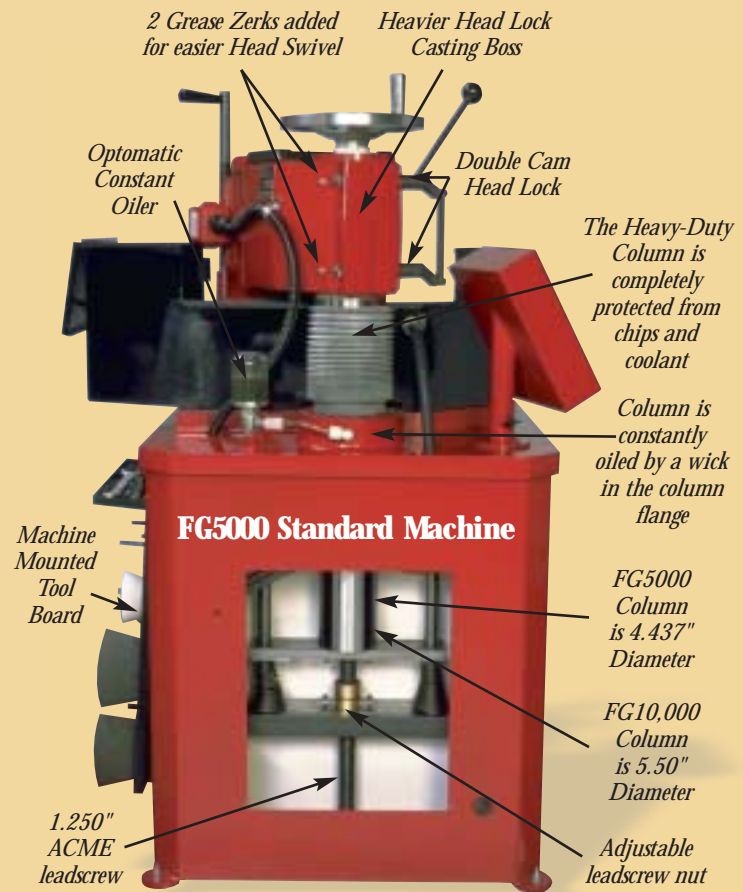
**Shop Vac Adapter**

*The Coolant Shroud has a removable cap to install the Shop Vac Adapter, part #794-8685-54 (optional). Using a vacuum cleaner with the FG's will reduce the mist and grinding debris in the shop.*

*Drilled and tapped holes for optional radius cutter*

**Most Vertical Clearance:**  
**FG5000 = 8.75"**  
**FG10,000 = 10.5"**

**The FG's from Van Norman have more features in the back than most grinders have altogether... making them easier to operate and maintain.**



*2 Grease Zerks added for easier Head Swivel*

*Heavier Head Lock Casting Boss*

*Optomatic Constant Oiler*

*Double Cam Head Lock*

*The Heavy-Duty Column is completely protected from chips and coolant*

*Column is constantly oiled by a wick in the column flange*

**FG5000 Standard Machine**

*Machine Mounted Tool Board*

*FG5000 Column is 4.437" Diameter*

*FG10,000 Column is 5.50" Diameter*

*1.250" ACME leadscrew*

*Adjustable leadscrew nut*

**Heavy-Duty Column Assembly**

The FG column diameters are the largest in the industry — the FG5000 is 4.437" and the FG10,000 is 5.50". Both are chromed and precision ground and are constantly lubricated by a felt wick installed within the column mounting flange. The columns are totally protected from grinding debris and coolant by a rubber boot.

The 1.250" ACME Lead Screw on the FG's are the largest on any flywheel grinder. The Heavy Duty Bronze Lead Screw Nut is adjustable to take up any "play" that may occur throughout the life of the machine.



# The FG's are built solid for rugged strength, precision and reliability.

## One-Piece 480 lb. Base Casting

- Heaviest and most rugged in the industry
- Cast-in column mounting flange supported by heavy gussets
- All machining of base casting with one set up for maximum accuracy and perfect perpendicularity



## Exclusive Direct Drive Gear Reduction Unit

- Rugged, Industrial Design
- Heavy Duty 1/3 H.P. Motor
- Delivers consistent torque to the table
- Requires no maintenance
- Has no chains or belts to lubricate, adjust or replace

## Column Mounting Flange

- Cast integrally for more strength, stability and perfect alignment
- Increased diameter to properly support the massive columns
- Column is constantly lubricated by internal wick



## Exclusive Cast-In Table Support — No Deflection, Ever

- 94 sq. in. Table Bearing Support
- Cast in oil reservoir
- Prevents any table deflection
- Faster, more accurate grinding — superior finish
- Rugged, life-time design

## Fast, simple, accurate set-up...in less than one minute!



1. Select the flange adapter and place it on the rotary table



2. Lay the flywheel on the adapter



3. Install the centering cone, hold down the bolt, and tighten

### That's the entire set-up!

The flywheel sits on a precision ground flange adapter ring assuring parallelism to the crankshaft flange. No indicating, no guessing, no scratch tests. Precision results — *every time.*

## Optional Accessories for FG Flywheel Grinders



### Optional 32 Gallon Coolant Tank

- 3-1/2 times the coolant capacity of a standard tank.
- Has two baffles and three settling compartments assuring clean coolant to the nozzle.
- Coolant Tank has handle with 2 wheels — roll away for easy disposal.
- 1/15H.P., 12GPM pump is removable for easy cleaning.
- Stainless steel pump shaft provides high torsional strength and is corrosion resistant.
- Requires 2-3/4" drain hole in base cabinet — order optional coolant tank with Flywheel Grinder.



### Optional Radius Cutter

The Radius Cutter quickly removes the slight radius left by the grinding wheel on stepped flywheels. In certain applications, the radius interferes with pressure plate mounting. The rugged boring bar removes the radius and produces a square corner. This heavy duty assembly bolts to the grinding head casting. The holes for mounting are already drilled and tapped.

### ATP5000 Kit — Transmission Pump & Cover Rebuilding

Rebuild parts to close tolerances fast. The FG5000/FG10,000 grinds bodies and covers from the GM THM700-4R and THM200-R4 transmissions. Tooling is precise, yet very easy to use. *Save time and money by rebuilding these parts in-house!*

### 10K Kits — Top Fuel/Funny Car & Pro Stock Kits

The 10K Clutch Buddy Tooling will resurface flywheels *without* removing studs, resurface pressure plates, resurface floater plates and resurface clutch discs.

Control Panels for all three models are easy to use and simple to understand.

### Standard Machine (FG5000)

*Manual Downfeed*



- Raising and lowering the grinding head is easy with the assistance of heavy tapered coil springs
- Easy for the operator
- Increases production

### PowerHead (FG5000 & FG10,000)

*Power Up/Down to Flywheel Manual Downfeed*



- PowerHead — ideal feature for grinding deep stepped flywheels
- Speeds up production
- Reduces operator fatigue

### Electronic AutoGrind™ (FG5000 & FG10,000)

*Power Up/Down to Flywheel Automatic Grind to Pre-set Depth*



- Variable controlled feed
- Will sense overload & reduce feed rate
- Frees up the operator
- Increases productivity
- Reliable electronics

# Ordering Information

## FG5000 FLYWHEEL GRINDER

### FG5000 Standard Machine

794-8690-00	.....208/230V, 60 Hz, 3 Ph
794-8690-01	.....208/230V, 60 Hz, 1 Ph
794-8690-02	.....460V, 60 Hz, 3 Ph
794-8690-03	.....380V, 50 Hz, 3 Ph
794-8690-04	.....575V, 60 Hz, 3 Ph

### FG5000 with PowerHead

794-8688-40	.....208/230V, 60 Hz, 3 Ph
794-8688-41	.....208/230V, 60 Hz, 1 Ph
794-8688-42	.....380V, 50 Hz, 3 Ph
794-8688-43	.....460V, 60 Hz, 3 Ph

### FG5000 with PowerHead & AutoGrind™

794-8688-50	.....208/230V, 60 Hz, 3 Ph
794-8688-51	.....208/230V, 60 Hz, 1 Ph
794-8688-52	.....380V, 50 Hz, 3 Ph
794-8688-53	.....460V, 60 Hz, 3 Ph

## FG10,000 ROTARY SURFACE (FLYWHEEL) GRINDER

### FG10,000 with PowerHead

794-8688-22	.....208/230V, 60 Hz, 3 Ph
794-8688-36	.....460V, 60 Hz, 3 Ph
794-8688-35	.....380V, 50 Hz, 3 Ph

### FG10,000 with PowerHead & AutoGrind™

794-8688-06	.....208/230V, 60 Hz, 3 Ph
794-8688-38	.....460V, 60 Hz, 3 Ph
794-8688-37	.....380V, 50 Hz, 3 Ph

## FG5000 & FG10,000 STANDARD EQUIPMENT\*

794-8010-64	.....Centering Cone Bolt 1.875" (47.6 mm)
794-8010-65	.....Centering Cone Bolt 2.625" (66.7 mm)
794-8010-66	.....Centering Cone Bolt 3.375" (87.8 mm)
794-8010-72	.....Centering Cone 1" - 1.75" (25.4 - 44.5 mm)
794-8010-74	.....Centering Cone 1.312" - 2" (33.3 - 50.8 mm)
794-8010-76	.....Centering Cone 1.75" - 2.5" (44.5 - 63.5 mm)
794-8017-93	.....Centering Cone 2" - 2.625" (50.8 - 66.7 mm)
794-8010-78	.....Centering Cone 2.25" - 3" (57.2 - 76.2 mm)
794-8010-80	.....Centering Cone 2.75" - 3.5" (69.9 - 88.9 mm)
794-8010-90	.....Flange Adapter 3" (76.2 mm)
794-8010-92	.....Flange Adapter 4" (101.6 mm)
794-8010-94	.....Flange Adapter 5" (127 mm)
794-8010-97	.....Flange Adapter 5.875" (149.2 mm)
794-8124-71	.....Wheel Spacer 1.5" (38.1mm)
000-0170-60	.....Wheel Mounting Bolt, 2.75"
000-0170-55	.....Wheel Mounting Bolt, 2.5"
000-0170-35	.....Wheel Mounting Bolt, 1.25"
000-0170-27	.....Wheel Mounting Bolt, 1.00"
794-8011-88	.....4" & 6" Wheel Mounting Flange
794-8011-12	.....Grinding Wheel 6" Flared Cup (FG5000)*
794-8011-30	.....Grinding Wheel 6" Flared Cup (FG5000 & FG10,000)*
794-8011-28	.....Grinding Wheel 4" Flared Cup (FG5000)*
794-8686-22	.....Grinding Wheel 6" Flared Cup, Ceramic Oxide (FG10,000)*
794-8686-23	.....Grinding Wheel 4" Flared Cup, Ceramic Oxide (FG10,000)*
794-8017-44	.....E-Z Lok Insert (2)
794-8637-45	.....E-Z Lok Insert Extractor
794-8013-12	.....O-Ring
794-8013-73	.....Oil Level Gauge
794-8011-70	.....Star Dresser
794-8011-52	.....Leadscrew Lubricant
794-8621-76	.....Coolant Pump
794-8011-40	.....Coolant Additive, 1 Qt (.946 liter)
794-8011-55	.....Table Lubricant, Qt (2)(.946 liter)
794-8030-58	.....Leveling Pads (4)
000-0114-10	.....Leveling Bolts (4)
000-1035-35	.....Leveling Lock Nuts (4)
794-8017-32	.....T-Handle Hex Wrench
794-8017-37	.....Wrench Set

## OPTIONAL ACCESSORIES

800-8017-39	.....Hex Wrench .375 AL
000-0601-00	.....Hex Wrench .25
794-8107-90	.....Small Bore Centering Cone Set
794-8684-78	.....Flywheel Dowel Pin Puller Kit - Automotive & Import
794-8685-49	.....VW/Universal Flywheel Kit
794-8685-32	.....Head Tilt Setting Kit
794-8627-83	.....Dial Indicator/Indicator Bar Set
794-8625-27	.....Radius Cutter Assembly
794-8107-88	.....Heavy Duty Universal Centering Cone & Spacer Set
794-8680-18	.....Heavy Duty Centering Adapter Set
794-8684-77	.....0" - 4" Depth Micrometer
794-8688-34	.....32 Gallon External Coolant Tank w/Baffles, 230V 60Hz 1 Ph
794-8690-84	.....Rinse Nozzle Kit
794-8689-53	.....Diamond Dresser Arm w/Diamond
794-8010-67	.....Centering Cone Bolt 3.5"
794-8677-99	.....Centering Cone Bolt 4.25"
794-8010-40	.....Clutch Tooling
794-8633-33	.....ATP Automatic Transmission Rebuilding Kit

## GRINDING WHEELS & SUPPLIES

794-8011-16	.....Grinding Wheel 6" Flared Cup
794-8011-32	.....Grinding Wheel 6" Straight Sided
794-8011-34	.....Grinding Wheel 6" Flared Cup
794-8011-36	.....Grinding Wheel 6" Flared Cup
794-8633-32	.....Grinding Wheel 4" Straight Sided
794-8687-01	.....Grinding Wheel 3" Flared Cup (Use 794-8686-97 Mounting Flange)
794-8686-97	.....3" Wheel Mounting Flange
794-8011-41	.....Coolant Additive, 1 Gal (3.8 liter)
794-8011-42	.....Coolant Additive, 5 Gal (18.9 liter)

## SPECIFICATIONS

	FG5000	FG10,000
Work Piece Capacity	.....24" (600 mm)	.....24" (600 mm)
Table Diameter	.....18" (450 mm)	.....18" (450 mm)
T Slots in Table	.....6	.....6
Table Support Diameter	.....15" (381 mm)	.....15" (381 mm)
Column Diameter	.....4.44" (111.8)	.....4.44" (111.8)
Vertical Head Travel	.....8.75" (222.3 mm)	.....10.5" (266.7 mm)
Max Height Table/Wheel	.....8.75" (222.3 mm)	.....10.5" (266.7 mm)
Grinding Motor @ 3500 RPM	.....5 Hp (3.5 kw)	.....10 Hp (7 kw)
Table Motor @ 16 RPM	.....1/3 Hp (.233 kw)	.....1/3 Hp (.233 kw)
Coolant Capacity, Standard	.....9.5 Gal. (36 liters)	.....9.5 Gal. (36 liters)
Coolant Capacity, Optional	.....32 Gal. (121.1 liters)	.....32 Gal. (121.1 liters)
Height (Overall)	.....69" (1752 mm)	.....69" (1752 mm)
Height (To table)	.....34.6" (878 mm)	.....34.6" (878 mm)
Width	.....34.5" (876 mm)	.....34.5" (876 mm)
Depth	.....36" (914.4 mm)	.....36" (914.4 mm)
Net Wt	.....1350 Lbs. (612.4 kg)	.....1550 Lbs. (703.1 kg)
Ship Wt	.....1500 Lbs. (680.4 kg)	.....1700 Lbs. (771.1 kg)

