



Established 1888

FG4000

Flywheel Grinder

Grinding less than 2 flywheels per week will pay for the machine!

Industrial quality controls are easy to use, simple and convenient for the operator

*The
INDUSTRY
LEADER
in Flywheel
Grinders!*

The FG4000 plunge grinds the flywheels, so the entire friction surface is ground at one time, assuring fast, accurate results

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

The grinding wheel dresser is machine mounted and is standard equipment. It's easy to use and assures the wheel is always dressed at the correct angle for fastest grinding

The FG4000 could become the most profitable machine in your shop!

- Compact, only 19" x 30" — takes up less space
- Affordable, ruggedly built
- Achieve precision results every time!
- Earn more dollars per hour of use



Solid, one piece base casting

Tool board conveniently stores all standard equipment and accessories

Profitable. Flexible. Easy-to-use. What else do you need to know?

WHETHER YOU'RE SELLING OR INSTALLING clutches, do you send your flywheels out? If so, you're giving away a substantial portion of your potential profit! If you're turning flywheels on a brake lathe, the Van Norman FG4000 Flywheel Grinder is more accurate, faster and more profitable! The FG4000 costs just a few dollars per day to own, takes only 19" X 30" of floor space and does not require a skilled machinist to operate. Your personnel will be trained to operate the flywheel grinder in less than a hour. Plus, grinding less than 2 flywheels per week will pay for machine!

A Versatile Flywheel Grinder!



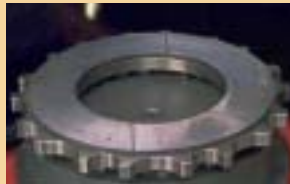
Automotive Stepped Flywheel



Import Stepped Flywheel



Truck Flat Flywheel



Racing Clutch Flywheel



Compact— only 19" x 30"

Takes up less space. With a 16" capacity, the FG4000 is an ideal machine for the service shop, racing team, transmission shop or the automotive jobber that sells clutches.

The tool board conveniently stores all standard equipment and accessories.



Coolant shroud has a removable cap to install a Shop Vac Adapter (Optional). Using a vacuum cleaner will reduce mist in the shop.

The 5 gallon coolant tank slides out, and the pump can be lifted out for easy cleaning



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*.



Hard Spots? Heat Checks? No Problems

The FG4000 plunge grinds the flywheels, so the entire friction is ground at one time, assuring fast, accurate results. The operator has total control over the "swirl" surface finish—the longer the spark out, the smoother the finish.



Wheel Dresser

The grinding wheel dresser is machine mounted and is standard equipment. It's easy to use and assures the wheel is always dressed at the correct angle for the fastest grinding.



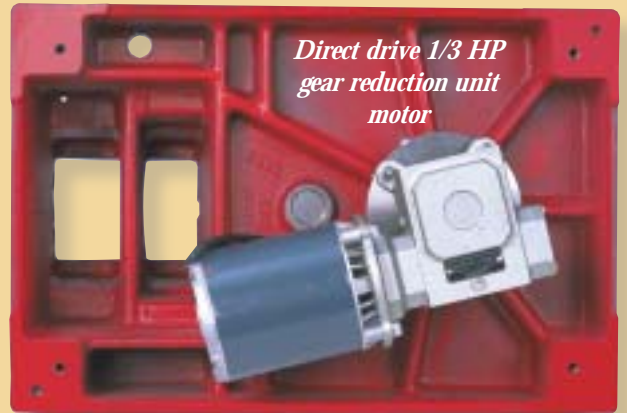
Exclusive table support design

Rugged bearing supports solid cast 12" x 1-1/2" table. This photo (with the table removed) shows the oil reservoir, the oil film and the cast-in table bearing support. The rotating table is totally supported preventing any deflection regardless of the flywheel size or how much grinding pressure is used.



Column slide ways

The dove tail ways on the column slide casting are of massive cast iron construction and are built to machine tool standards. The gibs are easily adjustable to maintain smooth grinding head movement and assure precision grinding throughout the life of the machine.



Direct drive 1/3 HP gear reduction unit motor

The unique design of the FG4000 means faster, more accurate grinding

- No chains or belts to adjust or replace
- Delivers constant torque
- Faster, more accurate grinding
- Solid, one piece base casting

The unique design starts with the massive one piece base casting with the exclusive cast-in table support, to the massive column slide with the large cast-in dove tail ways to the cast motor slide. The entire construction is rugged and properly supported to absorb any potential vibration caused by aggressive grinding pressure. You cannot substitute sheet metal for cast iron in any grinding machine application and achieve acceptable results.

Because roller bearings are not used to support the table, no field service or replacement is required throughout the life of the machine. Also, the FG4000 features direct table drive which delivers consistent torque to the table. It has no chains or belts to lubricate, adjust, replace, or maintain.

Ordering Information

STANDARD MACHINES

FG4000 Flywheel Grinder	
794-8684-00	.....230V, 60 Hz, 3 Ph
794-8684-01	.....230V, 60 Hz, 1 Ph
794-8684-02	.....230V, 50 Hz, 1 Ph
794-8684-03	.....380V, 50 Hz, 3 Ph

STANDARD EQUIPMENT INCLUDED

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)
794-8107-90	.....Small Bore Centering Cone Kit
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)
794-8010-90	.....Flange Adapter 3" (76.2 mm)
794-8010-92	.....Flange Adapter 4" (101.6 mm)
794-8010-94	.....Flange Adapter 5" (127 mm)
794-8124-71	.....Wheel Spacer 1.5" (38.1mm)
794-8011-90	.....Wheel Spacer 2.0" (50.8mm)
794-8687-01	.....Grinding Wheel 3" (76.2 mm) Flaring Cup
794-8686-97	.....3" Wheel Mounting Flange
794-8011-28	.....Grinding Wheel 4" (101.6 mm) Flaring Cup
794-8011-30	.....Grinding Wheel 6" (152.4 mm) Flaring Cup
794-8011-88	.....4" & 6" Wheel Mounting Flange
794-8692-38	.....Wheel Mounting Bolt, 4.5"
794-8692-39	.....Wheel Mounting Bolt, 4.25"
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"
794-8017-44	.....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, 1 Qt (.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
000-0601-00	.....Hex Wrench Set

OPTIONAL ACCESSORIES

794-8684-78	.....Flywheel Dowel Pin Puller Kit - Automotive & Import
794-8692-67	.....Flywheel Step Comparator
794-8685-49	.....VW/Universal Flywheel Kit (Scirocco, Rabbit, Omni, Horizon)
794-8690-84	.....Rinse Nozzle Kit
794-8627-83	.....Dial Indicator/Indicator Bar Set
794-8685-20	.....Radius Cutter Assembly
794-8685-32	.....Head Tilt Setting Kit
794-8689-53	.....Diamond Dresser Arm w/Diamond
794-8685-54	.....Shop Vac Adapter Assembly
794-8633-33	.....ATP 5000 Automatic Transmission Rebuilding Kit
794-8692-75	.....Loadmeter for 3 Phase
794-8692-77	.....Loadmeter for 1 Phase

GRINDING WHEELS & SUPPLIES

794-8011-12	.....Grinding Wheel 6" Flaring Cup
794-8011-16	.....Grinding Wheel 6" Flaring Cup
794-8011-28	.....Grinding Wheel 4" Flaring Cup
794-8011-30	.....Grinding Wheel 6" Flaring Cup
794-8011-32	.....Grinding Wheel 6" Straight Sided

794-8011-34	.....Grinding Wheel 6" Flaring Cup
794-8011-36	.....Grinding Wheel 6" Straight Sided
794-8633-32	.....Grinding Wheel 4" Flaring Cup
794-8687-01	.....Grinding Wheel 3" Flaring Cup (Use 794-8686-97 Mounting Flange)
794-8686-97	.....3" Wheel Mounting Flange
794-8017-44	.....E-Z Lok Insert
794-8011-70	.....Star Dresser
794-8011-52	.....Leadscrew Lubricant
794-8011-40	.....Coolant Additive, 1 Qt (.946 liter)
794-8011-55	.....Table Lubricant, 1 Qt (.946 liter)
794-8011-41	.....Coolant Additive, 1 Gal. (3.8 liter)
794-8011-42	.....Coolant Additive, 5 Gal. (18.9 liter)

794-8684-99 Pro Stock AFT Kit

- 794-8683-90....."Z" Blocks for Pressure Plate Resurfacing
- 794-8683-94.....Stool Assembly for Pressure Plate Resurfacing
- 794-8683-96.....Clutch Disc Ring, 1" thick x 10.5" Diameter
- 794-8683-91.....Flywheel Fixture Ring,
1" thick x 5" Diameter
- 794-8684-93.....Mitee Bite Clamp Kit
- 794-8685-19.....4" Wheel Spacer
- 794-8685-37.....3/8 - 16 x 5.5" SHCS
- 794-8685-01.....3/16" T Handle Wrench
- 794-8017-31.....5/16" T Handle Wrench
- 794-8684-98.....1/4" T Handle Wrench
- 794-8685-45.....Storage Case



794-8685-00 Top Fuel/Funny Car AFT Kit

- 794-8683-95.....Pressure Plate Fixture 2" thick x 10.5" Diameter
- 794-8683-96.....Clutch Disc Ring, 1" thick x 10.5" Diameter
- 794-8683-91.....Flywheel Fixture Ring,
1" thick x 5" Diameter
- 794-8684-93.....Mitee Bite Clamp Kit
- 794-8010-60.....Hex Stool Clamp Kit
- 794-8685-19.....4" Wheel Spacer
- 794-8685-37.....3/8 - 16 x 5.5" SHCS
- 794-8685-01.....3/16" T Handle Wrench
- 794-8017-31.....5/16" T Handle Wrench
- 794-8684-98.....1/4" T Handle Wrench
- 794-8685-45.....Storage Case



794-8685-47 Combination Kit

- The Combination Kit consists of 1 each of the Pro Stock and Top Fuel/Funny Car Kits.

ATP5000 KIT Automatic Transmission Pump & Cover Rebuilding

- Rebuild parts to close tolerances fast. The FG4000 grinds bodies and covers from the GM THM700-4R and THM200-R4 transmissions. Also, resurface covers from rotor and crescent pumps for most transmissions. Tooling is precise, yet very easy to use. You'll save time and money by rebuilding these parts in-house.

SPECIFICATIONS

Work Piece Capacity	.....16" (406 mm)
Table Diameter	.....12" (305 mm)
T Slots in Table	.....3
Table Support Diameter	.....9" (229 mm)
Vertical Head Travel	.....6.75" (171 mm)
Max Height Table/Wheel	.....6.75" (171 mm)
Grinding Motor @ 3500 RPM	.....5 Hp (3.5 kw)
Coolant Capacity	.....5 Gal. (19 liters)
Height (Overall)	.....57" (1448 mm)
Height (To table)	.....29" (737 mm)
Width	.....19" (483 mm)
Depth	.....30" (762 mm)
Net Wt	.....850 Lbs. (386 kg)
Ship Wt	.....1000 Lbs. (454 kg)