

VAN NORMAN®



Manufactured by Ironite Products Inc.

Established 1888

FG5000 & FG10000 Flywheel Grinders

*The
INDUSTRY
LEADER
in 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

A Van Norman flywheel grinder could be the most profitable machine you ever own!

Three models available:

- Standard Machine (FG5000) with Manual Downfeed
- PowerHead (FG5000 and FG10000) with PowerHead Up/Down to Flywheel and Manual Downfeed
- PowerHead with AutoGrind™ (FG5000 and FG10000) with PowerHead Up/Down to Flywheel and Automatic Grind to Pre-set Depth

If you're currently sending flywheels out, or machining them on a brake lathe...
you need a FG5000 or FG10000 Flywheel Grinder!

*Standard FG5000 with
Manual Downfeed (shown)*

*PowerHead FG10000 with
AutoGrind™ (shown)*



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



*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.*

Call for a Distributor near you at 1-800-553-5953

FG5000 & FG10000 features

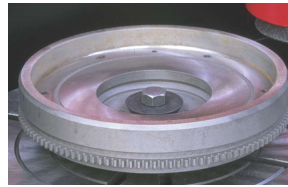
- Exclusive, rugged column-base casting with cast-in table support.
- Unlimited grinding pressure is possible—*with no table deflection.*
- Oil reservoir with Optomatic Oiler gives constant column/table support lubrication. Thrust bearings or anti-friction material (which require field service) are not used.
- Direct Table Drive—*No chains or belts to adjust or replace. Consistent torque to table.*
- Optional PowerHead and 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.*

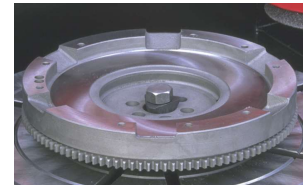
FG5000 & FG10000 benefits

- Grind your own flywheels... Finish the job fast...
Minimize idle rack time - MAXIMIZE PROFITS!
- Set-up is extremely fast and accurate. It is the easiest machine to operate in your shop.
- Grind most automotive and light truck flywheels floor to floor in 5–10 minutes (slightly longer for the heavy duty stepped flywheels).

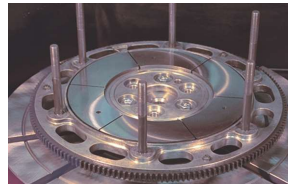
The most versatile grinder on the market!



Automotive Stepped Flywheel



Import Stepped Flywheel



Racing Clutch Components



Center Plate



Truck Flat Flywheel



Heavy Duty Truck Stepped Flywheel

- 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!
- Supply costs are minimal and labor costs are low because a skilled machinist is not needed to operate the Van Norman flywheel grinders.

Exclusive FG10000 design

The FG10000 was designed specifically for a 10 horsepower application—*NOT a 10 hp motor hung on a 5 hp machine!*

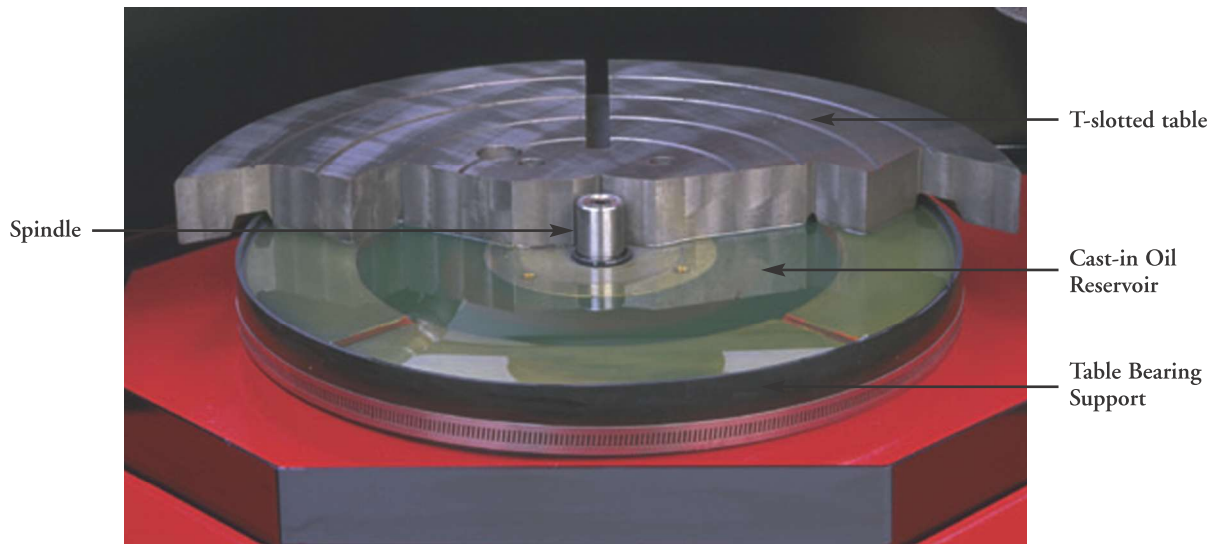
FG10000 features:

- 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:

FG10000 with Powerhead and AutoGrind™



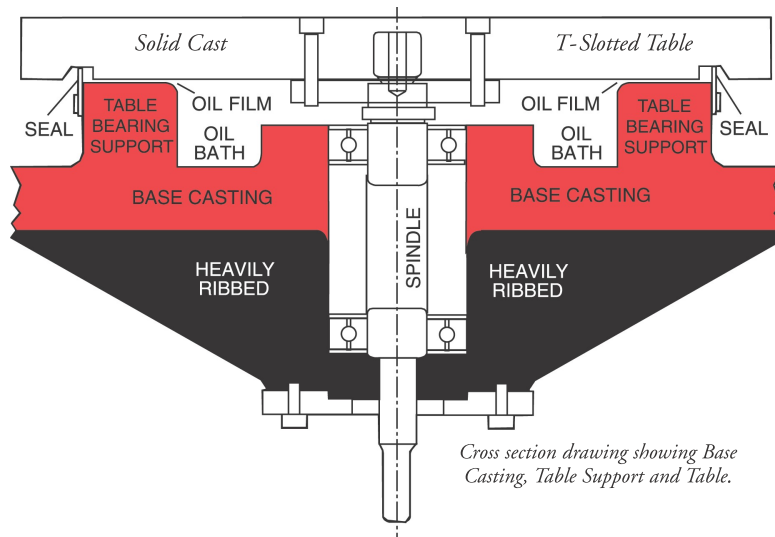


The unique design of the FG's ensures ease-of-use and longevity.

Rugged Cast Bearing supports 18" table

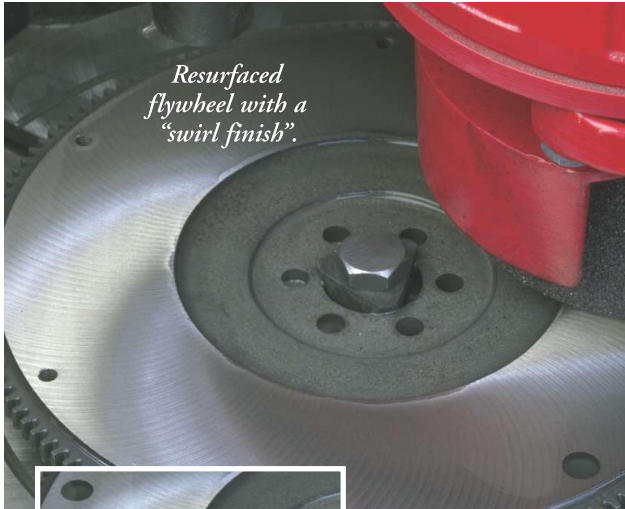
- Solid Cast Table (cut-a-way photo above) shows the Oil Reservoir, the Oil Film and the Table Bearing Support. *The table rotates on the cast bearing support that prevents deflection regardless of the flywheel size and weight, or grinding pressure.*
- The oil level is set 1/16" above the Table Bearing 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

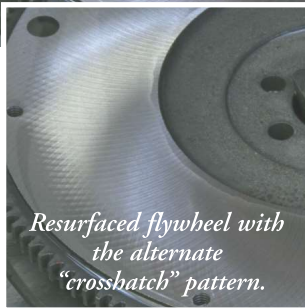


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The FG's plunge grind fast & accurately.
Hard spots and heat checks are NOT a problem!



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

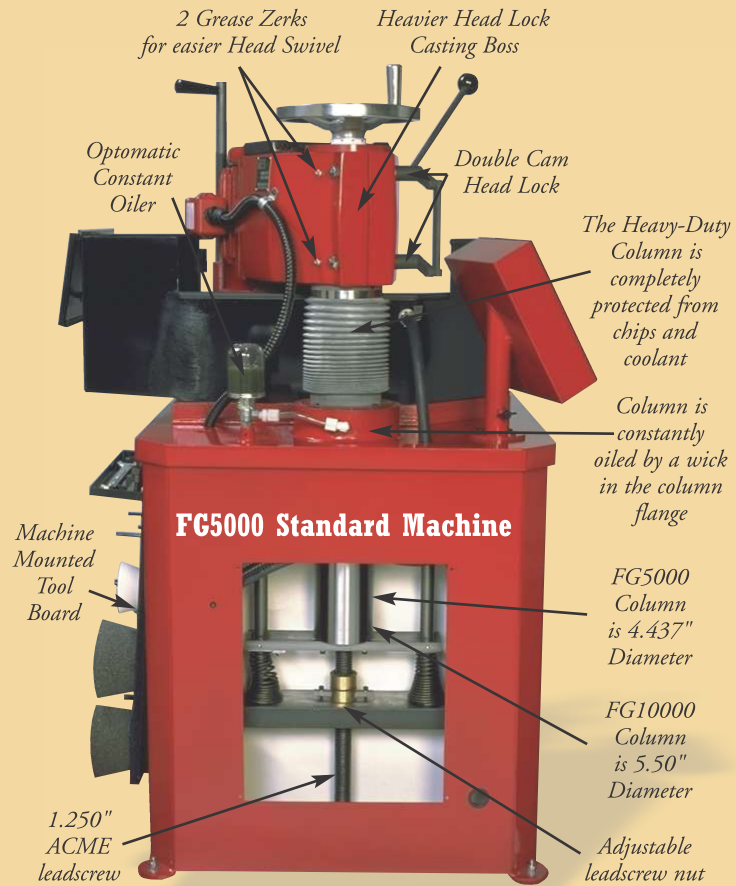
The grinding head assembly is set at the factory with a .023" rear tilt of the grinding wheel and the side to side setting of .000" for the fastest grinding and the best surface finish. The head tilt can be set flatter for even greater grinding precision.



Drilled and tapped holes for optional radius cutter

Most Vertical Clearance:
FG5000 = 8.75"
FG10000 = 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 for easier Head Swivel
Heavier Head Lock Casting Boss

Optomatic Constant Oilier
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

FG10000 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 FG10000 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.



Call for a Distributor near you

1-800-553-5953

Irontite Products Inc.
Manufacturers of Irontite, Kwik-Way & Van Norman Brands
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www.van-norman.com

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 square inch Table Bearing Support - Prevents table deflection
- Cast in oil reservoir
- 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.

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Optional Accessories for FG Flywheel Grinders



Optional Radius Cutter (794-8625-27)

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 cutter 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.

Heavy Duty Truck Rotor Kit (794-8628-00)

Designed for grinding rotors of large and medium sized, heavy duty trucks. The cost of replacing these rotors is on the rise making it more cost effective to resurface the existing rotors.

Expand the productivity of your Flywheel Grinder by including the ability to grind truck brake rotors in your shop.

This kit includes one of our longer lasting CBN grinding wheels and the cones and spacers to grind the most common sizes of truck rotors.



Formula X CBN Grinding Wheels

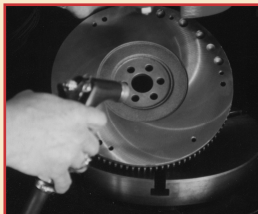
- 6" CBN 794-8060-00
- 4" CBN 794-8040-00
- 3" CBN 794-8030-00

Faster, Cleaner, Longer Life - better results!



Shown Grinding a HD Truck Rotor

Optional Rinse Kit (794-8690-84)



Here is an easy, fast method to clean up each flywheel or clutch as you finish them. It also makes the chore of cleaning the machine much easier.

Racing Tooling Kit (794-8687-04)

All the tooling necessary to grind clutch discs, pressure plate and racing-style flywheels. Optional (Mitee-Bite) Hold-Down Tooling available to grind floater plates (794-8684-93).

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

Standard Machine (FG5000)

Manual adjustment of the column up/down to flywheel with manual downfeed to grind



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

PowerHead (FG5000 & FG10000)

Powers column up/down to flywheel with manual downfeed to grind



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

Electronic AutoGrind™ (FG5000 & FG10000)

Powers column up/down to flywheel and automatically grinds to a pre-set depth.



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

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
794-8690-07	.....230V, 50 Hz, 1 Ph
794-8690-06	.....415V, 50 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
794-8690-16	.....415V, 50 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
794-8690-26	.....415V, 50 Hz, 3 Ph

FG10000 ROTARY SURFACE (FLYWHEEL) GRINDER

FG10000 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

FG10000 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 & FG10000 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" - 2.9" (50.8 - 73.7 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
794-8011-30	.....Grinding Wheel 6" Flared Cup
794-8011-28	.....Grinding Wheel 4" Flared Cup
794-8017-44	.....E-Z Lok Insert (2)
794-8637-45	.....E-Z Lok Insert Extractor
794-8013-12	.....O-Ring
794-8013-73	.....Table Oil Level Gauge
794-8011-70	.....Star Dresser (Wheel Dresser Assy)
794-8011-52	.....Leadscrew Lubricant
794-8621-76	.....Coolant Pump 115v, 60Hz
794-8671-15	.....Coolant Pump 230v, 50Hz
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 1/8 - 5/16" (3.137-7.937 mm)

SPECIFICATIONS

	FG5000	FG10000
Work Piece Capacity	.....24" (609 mm)	.....24" (609 mm)
Table Diameter	.....18" (457 mm)	.....18" (457 mm)
T Slots in Table	.....6	.....6
Table Support Diameter	.....15" (381 mm)	.....15" (381 mm)
Column Diameter	.....4.44" (112.78)	.....5.5" (139.7)
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 (.248 kw)	.....1/3 Hp (.248 kw)
Coolant Capacity, Standard	.....9.5 Gal. (36 liters)	.....9.5 Gal. (36 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. (614 kg)	.....1550 Lbs. (705 kg)
Ship Wt	.....1500 Lbs. (682 kg)	.....1700 Lbs. (773 kg)

OPTIONAL ACCESSORIES

794-8107-90	.....Small Bore Centering Cone Set (Import/VW Centering Cone & Flange)
794-8684-78	.....Flywheel Dowel Pin Puller Kit - Automotive & Import
794-8628-00	.....Heavy Duty Truck Rotor Grinding Kit
794-8685-50	.....Flywheel Grinder Light Assembly
794-8627-83	.....Dial Indicator/Indicator Bar Set (includes 794-8685-32)
794-8625-27	.....Radius Cutter Assembly
794-8107-88	.....Heavy Duty Universal Centering Cone & Spacer Set
794-8680-18	.....Heavy Duty Centering Adapter Set
794-8690-84	.....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"
794-8687-04	.....Racing Tooling Kit
794-8684-93	.....Optional (Mitee-Bite) Hold-Down Tooling for Floater Plates

GRINDING WHEELS & SUPPLIES

794-8687-01	.....Grinding Wheel 3" Flared Cup (Requires 794-8686-97 Mounting Flange)
794-8686-97	.....3" Wheel Mounting Flange (for 794-8687-01 Wheel)
794-8030-00	.....3" CBN (Formula X) Grinding Wheel
794-8040-00	.....4" CBN (Formula X) Grinding Wheel
794-8060-00	.....6" CBN (Formula X) Grinding Wheel
794-8011-12	.....Grinding Wheel 6" Flared Cup (HD Truck / Agriculture)
794-8011-30	.....Grinding Wheel 6" Flared Cup (Automotive / Light Truck)
794-8011-28	.....Grinding Wheel 4" Flared Cup (Smaller Imports)
794-8011-41	.....Coolant Additive, 1 Gal (3.8 liter)
794-8011-42	.....Coolant Additive, 5 Gal (18.9 liter)
794-8017-44	.....E-Z Lok Insert
794-8637-45	.....E-Z Lok Insert Extractor
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)
794-8010-67Centering Cone Bolt 3.5"
794-8677-99Centering Cone Bolt 4.25"



Call for a Representative near you
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Irontite Products Inc.
 Manufacturers of Irontite, Kwik-Way and Van Norman Brands

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