

## Engine Building and Tuning Tools

### Engine Cleaning Brush Sets



Cleanliness is critical when building a racing engine. Leftover machining trash in an oil passage can ruin a fresh engine the first time it is started. These brushes will ensure that you get all the oil drillings clean in your crankshaft, block, etc. The basic set has three commonly used sizes for small oil passages. The deluxe set has a larger variety of sizes, longer handles, and two of each of the most often used small sizes that wear out the fastest.

**Basic Set of 3 Brushes** ..... Part No. 3107-3 ..... \$15.99  
**Deluxe Set of 12 Brushes (shown above)** ..... Part No. 3107-12 ..... \$44.99

### Piston Ring End Gap Filer

Quickly and easily grinds the piston ring end gap straight and clean. Don't risk damaging an expensive set of rings by doing this job with a hand file. Clamps or bolts to your workbench.



**Complete End Gap Filing Tool with blade**  
 Part No. 3136-101 ..... \$89.99  
**Replacement grinding blade only**  
 Part No. 3136-102 ..... \$19.99

### Piston Ring Expander



Don't risk breaking an expensive set of rings (or scratching your even more expensive pistons) prying the rings on and off by hand. The proper tool applies even pressure around the inside edge of the ring. Fits 50 to 100mm bore sizes, including FF1600 and FC/S2 engines.

**Piston Ring Expander, 50mm to 100mm bores** ..... Part No. BT-014450001 ..... \$43.71

### Tapered Piston Ring Compressors

These expertly-machined sleeves have a radiused taper to gently compress the rings as the piston is lowered into the bore. No setup, no adjustment, and no sharp edges to damage your rings. Simply place it on top of the block and slide the piston through. Black anodized aluminum with the bore size etched in bold, bright numbers for easy identification.



**Piston Ring Compressor, 81mm (FF1600)** ..... Part No. ARP901-8100 ..... \$63.77  
**Piston Ring Compressor, 91mm (FC/Sports 2000)** .. Part No. ARP901-9100 ..... \$63.77

### ARP Connecting Rod Bolt Stretch Gauge



Even the best torque wrench can only estimate the preload in a tightened bolt. A stretch gauge is the only way to accurately measure preload. Recording the measurements will also alert you if any bolts have stretched and are about to break. This pro-quality gauge features a billet frame for consistent, repeatable measurements.

**Rod Bolt Stretch Gauge with case** ..... Part No. ARP100-9942 ..... \$202.35

### Plastigauge

Use **Plastigauge** to quickly and accurately measure clearances of rod and main bearings. Place a short length of Plastigauge (about 1/2 inch long) on the crankshaft bearing journal and install the bearing shell and cap as normal. Remove the bearing cap and shell. Compare the width of the deformed Plastigauge to the gauge on the package to accurately determine the bearing clearance. Each package contains one 12 inch long piece, usually enough to do a complete engine.

**Plastigauge, .001 to .003 Clearance (Green)** ..... Part No. 3325-1 to 3 ..... \$3.99  
**Plastigauge, .002 to .006 Clearance (Red)** ..... Part No. 3325-2 to 6 ..... \$3.99  
**Plastigauge, .004 to .009 Clearance (Blue)** ..... Part No. 3325-4 to 9 ..... \$3.99

### 7 Inch Degree Wheel

The only way to accurately check camshaft timing is with a degree wheel. Bushings are furnished for 7/16, 1/2, and 3/4 inch bolt diameters. Instructions are printed right on the degree wheel. Can also be used for checking static ignition timing.

**7 Inch Degree Wheel** ..... Part No. 3125 ..... \$33.49

### Ford 1.6L Head Bolt Socket



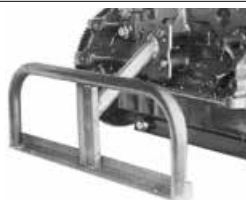
This is an indispensable tool for Formula Ford owners. Allows the final hot re-torque of head bolts to be done without removing the rocker shaft assembly. The six-point 1 1/16" socket (for 1/2" drive) has a long, thin shank to clear the rocker shaft.

**Head Bolt Socket** ..... Part No. 3132 ..... \$34.99

### Engine Stands for Ford 1.6L or 2.0L

These stands are the ideal way to store or transport your 1.6L or 2.0L dry sump Ford engine. Protects your valuable sump and crankshaft from the damage that can result from putting the weight of the engine on these items. They also provide convenient handles which makes moving the engine much easier and safer. Sold in pairs.

**Ford 1.6L / 2.0L Engine Stands, pair**  
 Part No. 1690 ..... \$187.99



### Uni-Syn Carburetor Synchronizer

The **Uni-Syn** is great for quick and easy synchronization of multiple carburetors or fuel injection stacks. The sight tube pivots for use with both side-draft and down-draft carburetors, and the 3 inch diameter base fits most velocity stacks. Instructions are included.



**Uni-Syn Carburetor Synchronizer**  
 Part No. 3115 ..... \$43.99

### Air Density Gauge

While your competition is busy reading plugs and pipes, you could already be installing the proper jets. This simple digital gauge displays the current air density, your baseline air density (which you can reset at any time), and the difference between the two. Or switch to air density, barometric pressure, and air temperature. A red LED flashes to alert you if air density has changed more than 5% from your baseline. Includes battery and protective storage case.



**Air Density Gauge** ..... Part No. LA50887 ..... \$179.99

### Spark Plug Magnifying Flashlight

A spark plug magnifying flashlight can reveal oil deposits, signs of detonation or burned pistons, and cracked or chipped insulators even in the dark! A perfect way to see how well your engine is dialed in.



**Spark Plug Magnifying Flashlight**  
 Part No. 1308 ..... \$32.99

### Compression Tester

A compression test is still the quickest and easiest (and most portable) way to determine the health of an engine. Simply remove the spark plugs, screw in the tester, and crank the engine over. No compressed air source is required! Our analog-style tester has a quick-release hose assembly with a threaded end fitting that fits common 14 x 1.25mm spark plug threads including FF1600.



**Compression Tester, analog style** ..... Part No. LA73025 ..... \$39.99

### Remote Starter Switch



Crank your engine over from the engine bay without a helper! Simply clip one lead to your starter hot post and the other lead to the solenoid terminal from the starter switch. Press the button and the starter will turn. Alligator clips allow quick connection and removal. The billet aluminum handle fits comfortably in your hand.

**Remote Starter Switch** ..... Part No. LA45795 ..... \$39.99

### Pedal It Remote Starter Switch Pedal

Stop dropping your tools when you need to bump the engine over for valve adjustments! The **Pedal It** is a totally hands-free remote starter switch built into a convenient foot pedal. When you're ready to adjust the next cylinder, just tap the pedal with your foot. No more putting down the wrenches and feeler gauges and running around the car to hit the starter. You can easily cut valve adjustment time in half. Even if you use a hand-held remote starter switch, you'll still save time by keeping your tools in your hands. Complete kit includes a variety of quick-disconnect pigtail connectors for temporary or semi-permanent installation on virtually any engine.



**Pedal It Remote Starter Switch Pedal Kit** ..... Part No. 7205-201 ..... \$89.99

### Dual-Gauge Leak-Down Tester



A leak-down test is the most accurate way to check the condition of your engine. It even helps to identify the problem without ever opening up the engine. Save money by avoiding unnecessary engine rebuilds! Our dual-gauge tester displays the input pressure on one gauge and the percentage of leakage on the other gauge, with no math required. Operating instructions are included. Fits common 14 x 1.25mm spark plug threads including FF1600. Requires a compressed air source of at least 80 psi.

**Engine Leak-Down Tester** ..... Part No. LA73010 ..... \$119.99

### Titan Engine Oil Analysis



The next best thing to a complete teardown and inspection! Just take a small sample of used oil at your next oil change, fill out the bottle label, and drop the bottle into the mail in the pre-paid shipping box. Titan Labs will perform over 50 tests and send back a report within 24 hours. If a critical problem is found, you will be contacted immediately.

**Titan Engine Oil Analysis, single** ..... Part No. 5090-1 ..... \$23.99