





Trick Flow Specialties' reputation was earned by creating, engineering, and manufacturing budget-friendly cylinder heads that deliver phenomenal out-of-the-box performance. This devotion has fueled more than 30 years of Trick Flow's trademark innovation.

It all starts at Trick Flow's corporate headquarters in Tallmadge, Ohio. Trick Flow engineers design new ports, change valve angles, relocate combustion chambers, and try new spark plug locations to find more usable horsepower and torque. Trick Flow's in-house pattern makers build the foundry tooling to make the heads. Trick Flow works carefully to verify that its castings meet stringent quality standards before they are machined on-site using the latest in

advanced multi-axis CNC-machining equipment. The heads are then assembled with top-quality components by experienced personnel.

Specialists using Trick Flow's SuperFlow engine dynamometers perform extensive durability and performance analysis before approving the heads for road and track testing. Once Trick Flow is confident that the heads will exceed customers' expectations, they are boxed and shipped to authorized dealers.

This catalog is full of cylinder heads, intake manifolds, and other parts that are engineered, cast, machined, assembled, durability tested, and dyno proven to provide you with Ultimate Bolt-On Performance!™







#### **Trick Flow's Four Performance Levels**

Trick Flow cylinder heads are available in four performance levels, each specifically tailored to address specific horsepower levels and budget requirements requested by our customers.

#### Fast As Cast® Runners with Standard Combustion Chambers:

An excellent foundation for grassroots racing and moderate performance rebuilds, Fast As Cast cylinder heads outflow any other cast head available, and even rival some of our competitor's CNC-ported heads, for about the same price as most regular cast heads.

#### Fast As Cast Runners with CNC-Profiled Combustion Chambers:

Same as our other Fast As Cast heads, but with standard resolution CNC-profiled combustion chambers with port-to-valve seat blending (bowl blending) for increased performance.

#### **CNC Street Ported Runners and Combustion Chambers:**

A great entry-level CNC cylinder head with fully CNC-machined runners and combustion chambers with a standard resolution surface finish for significant performance gains.







Fast As Cast®

CNC Street Ported

**CNC Competition Ported** 

#### **CNC Competition Ported Runners and Combustion Chambers:**

Trick Flow's top-of-the-line choice with fully CNC-machined runners and combustion chambers and a premium high resolution surface finish that delivers maximum airflow and performance over the entire powerband.

## "Emissions-Legal" Explained

The California Air Resources Board (CARB) prohibits the sale or use of parts that will modify or defeat emissions systems in any 1966 and newer vehicle. This excludes true replacement parts and those granted an exemption (E.O. #) by the California Air Resources Board. Where possible, we list the CARB E.O. # for parts granted one. Look for the CARB E.O. # to choose the right parts for emissions-legal performance. Please call 1-330-630-1555 for further guidance.



#### **WARNING**

Proposition 65 Compliance Statement: It is the responsibility of Trick Flow to warn its customers and employees that some products sold in this catalog contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



#### PowerPort® Cylinder Heads and Intake Manifold for Ford 390–428 ..... PowerPort® Cylinder Heads and Accessories for Big Block Mopar..... PowerOval® and PowerPort® Cylinder Heads and Accessories for Big Block Chevrolet.......pages 27–31 PowerPort 240 Cylinder Heads PowerOval 280 Cylinder Heads PowerPort 175 Cylinder Heads PowerPort 270 Cylinder Heads PowerPort 320 Cylinder Heads Track Heat<sup>®</sup> Intake Manifold PowerPort Top-End Engine Kit MLS Cylinder Head Gaskets PowerPort 365 Cylinder Head R-Series Intake Manifold . R-Series Tunnel Wedge Intake Manifold PowerPort® Cylinder Heads and Accessories for Ford 429/460..... • Track Heat® Intake Manifolds Roller Rocker Arms .pages 55–58 Rocker Stud GirdlesTrue Roller Timing Chain Set . Cylinder Head Bolt Kit Cylinder Head Stud Kit PowerPort 290 Cylinder Heads PowerPort 325 Cylinder Heads MLS Exhaust Gaskets Fabricated Aluminum Valve Covers Track Max® Camshaft Hydraulic Retro-Fit Roller Lifters Carburetor Spacers Track Max® Camshafts · PowerPort A460 340 Cylinder Heads . PowerPort A460 360 Cylinder Heads Valley Plate Kits PowerOval Top-End Engine Kit Intake Manifolds Harmonic DampersCast Aluminum Valve Covers · Cylinder Head Bolt Kits True Roller Timing Chain Set Gasket Sets . Roller Rocker Arms · Camshaft Installation Handle · Rocker Stud Girdles · Transmission Pan · Main Stud Girdles Twisted Wedge® Cylinder Heads and Accessories for Ford 4.6L/5.4L Valve Covers PowerPort® Cylinder Heads for Small Block Mopar...... pages 32-38 Cylinder Heads for 1949–53 Ford and Mercury Flathead V8 ...... .page 7 Twisted Wedge 185 Cylinder Heads Twisted Wedge Track Heat® 185 Cylinder Heads Twisted Wedge Race 195 Cylinder Heads PowerPort 190 Cylinder Heads Track Heat® Intake Manifold · Cylinder Heads Power Steering Reservoir Bracket GenX® Cylinder Heads and Accessories .pages 60-68 Valvetrain Components. Timing Cover Bolt and Stud Kit for GM LS.. pages 8-15 Track Max® Camshafts Hydraulic Lifters Track Max Camshaft and Valve Spring Upgrade Kits • GenX 260 Square Port Cylinder Heads for GM LS7 · Chromoly Pushrods Cylinder Head and Camshaft Installation DVD · Cylinder Head Bolt Kits Pushrod Length Checkers Valve Cover-Mount Ignition Systems . GenX 255 Square Port Cylinder Heads for GM LS3 Track Max® Camshafts and Camshaft Kits Cast Aluminum Valve Cover Kits Valve Spring Compressors Valve Cover Spacers GenX 205 Cathedral Port Cylinder Heads for GM LS 4.8L/5.3L/5.7L (Vortec) · Folding Chair Trick Flow by PAC Racing Valve Springs Replacement Valvetrain Components Trick Flow by PAC Racing Valve Spring Upgrade Kits GenX 215 Cathedral Port Cylinder Heads for GM LS1 GenX 225 Cathedral Port Cylinder Heads for GM LS2 Twisted Wedge® Top-End Engine Kits Valve Spring Upgrade Kits Valve Spring Retainers Valve Spring Cups . GenX 235 Cathedral Port Cylinder Heads for GM LSX · Valve Spring Change Accessory Kit Valve Stem Seals GenX 245 Cathedral Port Cylinder Heads for GM LSX GenX 220 Cathedral Port Cylinder Heads for GM LS1 and LS2 Valve Spring Compressor Cylinder Head Bolt Kit Valve Spring Shims Valve Spring I.D. Locators · Active Fuel Management Delete Kits Cam Degree and Supplement Kits and Accessories Valve Stem Locks GenX Top-End Engine Kits Track Max® Camshafts . EFI Intake Manifolds True Roller Timing Chain Sets TFX™ EFI Fuel Rails · Track Max Harmonic Dampers and Pulley Kits • True Roller Timing Chain Sets High-Flow Upper Plenums Timing Chain Damper and Adapter Bracket Variable Valve Timing Delete Kits Air and Fuel Delivery. ..pages 69-72 • Cylinder Head and Intake Gaskets • Throttle Cable Mounting Brackets • Throttle Cable Linkage Adapters PowerPort® Cylinder Heads and Accessories for Ford 351C, 351M/400, and Cle<u>vor .....</u> Valve Spring Upgrade Kits Valve Spring Compressors TFX™ EFI Fuel Rails • Fuel Pressure Regulator Brackets PowerPort Cleveland 195 Cylinder Heads · Ball Cans · Rocker Arm Upgrade Components PowerPort Cleveland 225 Cylinder Heads · Carburetor Spacers Flywheel Holding Tool R-Series Intake Manifolds for GM LS3 Intake Manifolds Cast Aluminum Valve Covers TBI Spacer Kits TFX™ Fuel Pressure Regulators TFX™ EFI Fuel Rails TFX Fuel Filters Roller Rocker Arms . TEX Fuel Injector Connectors and Adapters TFX Fuel Pumps TFX Fuel Rail and Pressure Sensor Adapters Rocker Stud Girdles • TFX EFI Throttle Bodies . Trick Flow by Wiseco PowerPort Forged Pistons Steam Line Fittings and Plumbing Kits Throttle Cable Brackets T-Shirts TFX™ EFI Fuel Rails TFX Fuel Injectors TFX Fuel Line Fittings GenX® Cylinder Heads and Accessories for GM LT1..... Coolant Crossover Kit pages 16-17 . TFX High-Flow and Cold Air Air Intake Kits Twisted Wedge® and High Port® Cylinder Heads and Accessories for Small Block Ford......p • GenX 185 Cylinder Heads • GenX 195 Cylinder Heads • TFX Nitrous Systems ..pages 42-53 **Headers and Exhaust** pages 73-76 · Track Max® Camshaft Twisted Wedge 170 Cylinder Heads • Trick Flow by Stainless Works Headers GenX Top-End Engine Kit TFX<sup>™</sup> Cold Air Intake Kits Twisted Wedge 11R 170 Cylinder Heads MLS Exhaust Gaskets Twisted Wedge 11R 190 Cylinder Heads Twisted Wedge 11R 205 Cylinder Heads Accessories and Tools. ..pages 77-79 Twisted Wedge Race 206 Cylinder Heads DHC™ 175, Super 23®, and Ultra 18® Cylinder Heads and Accessories for Small Block Chevrolet.....pages 18–26 · MLS Head Gaskets Twisted Wedge Race 225 Cylinder Heads High Port 192 Cylinder Head · Transmission Pans Differential Covers and Carrier Bearing Cap Stud Kits Valve Cover Breather Systems and Accessories • DHC 175 Cylinder Heads High Port 225 Cylinder Heads Super 23 175 Cylinder Heads Super 23 195 Cylinder Heads High Port 240 Cylinder Heads Head Bolt Reducer Bushings · Header Spark Plug Socket Chrome Engine Accessories Steam Line Fittings and Plumbing Kits · Super 23 215 Cylinder Heads Locating Dowels Twisted Wedge Top-End Engine Kits EFI Intake Manifolds Super 23 230 Cylinder Heads Super 23 Top-End Engine Kits Engine Priming Pump Kit TFX EFI Fuel Rails and Kits TFX™ Nitrous Systems for EFI Manifolds Cylinder Head Porting Tools • Ultra 18 250 Cylinder Head Cylinder Head Work Stands · Fabricated Aluminum and Chrome Steel Valve Covers Carburetor and Carb-Style EFI Intake Manifolds · Engine Oil Supplement · Roller Rocker Arms Valve Cover Adapters Track Max® Camshafts and Camshaft Kits Gaskets and Gasket Sets Header Flanges Cylinder Head Bolt Kit Rocker Stud Girdles • True Roller Timing Chain Set Track Max® Camshafts **Ultimate Bolt-On Performance®** . Cylinder Head Bolt Kit · Roller Rocker Arms **Lifetime Warranty** Valve Spring Upgrade Kits True Roller Timing Chain Set Rocker Stud Girdles • StreetBurner® Intake Manifold · Cast Aluminum Valve Covers Trick Flow Specialties guarantees original, unmodified cylinder head · Gaskets and Gasket Sets castings against manufacturing defects. Trick Flow's liability is limited to replacing the casting. Main Stud Girdles Valve Covers Trick Flow by Wiseco Twisted Wedge Forged Pistons

to replacing the casting.

The valves, valve guides, valve seats, valve job, valve springs, valve spring retainers, valve locks, rocker arm studs, guide plates, and valve stem seals included on assembled Trick Flow Specialties cylinder heads are warranted to the original purchaser to be free from defects in materials and workmanship for a period of two years from the date of purchase. All other Trick Flow Specialties products are warranted to

be free from defects in materials and workmanship for a period of 90

days. There are no mileage limitations.

Visit TrickFlow.com for complete details.

Trick Flow Specialties has an ongoing product improvement program and reserves the right to change specifications without notice. Catalog errors in description or photography are subject to correction.

EFI Heat Spacer Kits
 Billet Oil Fill Kit

• A/C Eliminator Bracket • SN95 Throttle Body Adapters

. Throttle Cable Bracket Kits

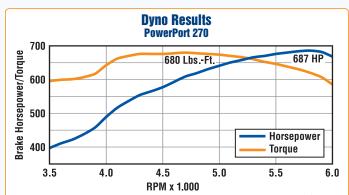
# PowerPort® 240 and 270 Cylinder Heads for Big Block Mopar

What makes PowerPort heads for big block Mopar so great? For starters, they're made from A356-T61 aluminum. so they weigh much less than cast iron heads. Then there's the relocated rocker shaft oil holes that allowed Trick Flow engineers to optimize the shape of the runners to increase flow velocity and add much needed strength to the shaft bosses. Other vital improvements include clearance for 3/8" pushrods, ductile iron valve seats, bronze alloy valve guides, and multi-angle valve seats.

PowerPort heads for big block Mopar come in two flavors: PowerPort 240 and PowerPort 270. The PowerPort 240 heads are for mild-to-moderate performance applications using regular intake manifolds and feature CNC Street Ported intake runners with a standard resolution surface finish. The PowerPort 270 heads feature larger, raised Max Wedge-style intake runners for improved airflow. They're topped off with the high resolution CNC Competition Ported surface finish that guarantees balanced flow for maximum power potential.

Trick Flow designed the PowerPort heads to use all factory-style big block Mopar pistons, roller rocker arms, and headers.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.15:1 compression Mopar 505 c.i.d. with Trick Flow PowerPort® 270 cylinder heads (TFS-61617802-C01), Trick Flow Track Max® hydraulic roller camshaft (TFS-61602003), Trick Flow retro-fit hydraulic roller lifters (TFS-21400011), Harland Sharp 1.6 ratio shaft mount roller rocker arms (CSP-S70016KE), port matched Trick Flow Track Heat® intake manifold (TFS-61600113), Trick Flow by Quick Fuel Technology Track Heat Pro 950 cfm carburetor (TFS-20950R), Trick Flow billet aluminum carburetor spacer (TFS-2141501B), 93 octane pump gas, Hooker headers with 2" primaries, 3½" dual exhaust with Flowmaster mufflers.

#### PowerPort 240 Heads, CNC Street Ported Runners, Assembled

TFS-61617801-C00 1.460" dual valve springs, 240cc intake runners TFS-61617802-C00 1.550" dual valve springs, 240cc intake runners

TFS-6161T783-C00 1.550" dual valve springs and titanium retainers, 240cc intake runners

TFS-6161T784-C00 1.560" dual valve springs and titanium retainers, 240cc intake runners

#### PowerPort 270 Heads, CNC Competition Ported Runners, Assembled

TFS-61617801-C01 1.460" dual valve springs, 270cc intake runners TFS-61617802-C01 1.550" dual valve springs, 270cc intake runners

TFS-6161T783-C01 1.550" dual valve springs and titanium retainers, 270cc intake runners TFS-6161T784-C01 1.560" dual valve springs and titanium retainers, 270cc intake runners

Airflow Results PowerPort 240			
Lift Value	Intake Flow CFM	Exhaust Flow CFM	
	240	240	
.100"	72	58	
.200"	154	130	
.300"	230	186	
.400"	282	222	
.500"	310	243	
.600"	326	253	
.700"	334	262	

Tests conducted at 28" of water (pressure) Bore size: 4.350"; exhaust with 2" pipe.

# **Specifications**

C00: 2.270" x 1.230"

TFS-61617801-C00

Material: A356-T61 aluminum Combustion Chamber Volume: 78cc CNC-profiled

Intake Port Volume: C00: 240cc CNC Street Ported C01: 270cc CNC Competition Ported

C00: Stock Intake Port Location: C01: Raised Max Wedge-style

C01: 2.630" x 1.340" C00: Fel-Pro 1216 (gaskets only) Intake Gaskets: C01: Fel-Pro 1218 (gaskets only)

Valley Pan Gasket Sets: 361-400: Fel-Pro 1214 413-440: Fel-Pro 1215 Intake Valve Diameter: 2.190" (TFS-61600211) Intake Valve Seat: Ductile iron (TFS-53400271)

C00: 74cc CNC Street Ported C01: 74cc CNC Competition Ported Exhaust Port Volume: Exhaust Port Location: Stock

Exhaust Port Dimensions: 1.250" x 1.650" oval

Exhaust Gaskets: Fel-Pro 1414 1.760" (TFS-61600212) Exhaust Valve Diameter: Ductile iron (TFS-61600272) Exhaust Valve Seat:

Valve Angles:

Valve Stem Locks:

Rocker Arm Studs:

Intake Port Dimensions:

Valve Guide Material: Bronze alloy (intake TFS-51600251, exhaust TFS-61600251) Viton® fluoroelastomer canister (TFS-30400454)

Valve Seals:

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1 615 1.550" x .060" (TFS-21400440) Valve Spring I.D. Locators:

7° x 1.550" o.d. chromoly steel (TFS-31400424) Valve Spring Retainers: 10° x 1.550" o.d. chromóly steel`(TFS-41400423)

10° x 1.550" o.d. titanium (TFS-214T0520) 10° x 1.560" o.d. titanium (TFS-214T0525) 7° machined steel (TFS-51400444)

10° machined steel (TFS-52400444) Valve Springs, Standard: 1.460" o.d. dual spring with damper

(TFS-16893-16) 120 lbs. @ 1.900" installed height

394 lbs. @ 1.175" open 390 lbs. per inch rate .650" max. valve lift

1.550" o.d. dual spring (TFS-16094-16) Valve Springs, Option 1:

138 lbs. @ 1.950" installed height 430 lbs. @ 1.250" open 420 lbs. per inch rate .680" max. valve lift

1.560" o.d. dual spring (TFS-16318-16) Valve Springs, Option 2:

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open

500 lbs. per inch rate .700" max. valve lift 3/8" (TFS-61600613)

Rocker Arms: Harland Sharp S70015KE (1.5 ratio) Harland Sharp S70016KE (1.6 ratio) Minimum Bore Diameter: 4.320"

TFS-92025 Cylinder Head Bolts: ARP 145-3609 TFS-61604304

Cylinder Head Studs: Fel-Pro 1009 Head Gaskets: Head Locating Dowels: Mr. Gasket 4375

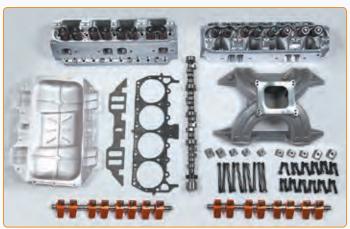
Longer than stock may be required Pushrod Length:

Spark Plugs: Autolite 3924

NOTE: Work with stock pistons, roller rocker arms, and headers.

Viton® is a registered trademark of DuPont Performance Elastomers.



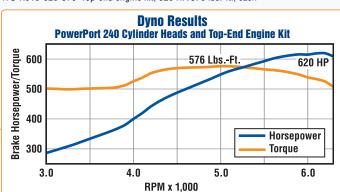


# PowerPort® Top-End Engine Kit for Big Block Mopar 440



Save cash and take the guesswork out of designing a winning engine combination with this Trick Flow PowerPort top-end engine kit. Carefully tuned by Trick Flow engineers to deliver optimum horsepower and torque on a big block Mopar, this kit is built around a set of dyno-proven PowerPort 240 cylinder heads (TFS-61617802-C00). Also included is a Track Max® hydraulic roller camshaft (TFS-61602003), a Track Heat® intake manifold (TFS-61600113), 1.5 ratio roller rocker arms with shafts and hold-down bolts, MLS head gaskets (TFS-61694380-051), a cylinder head bolt kit (TFS-92025), and an intake gasket set with valley pan. For Chrysler 440-based engines only.

TFS-K616-620-576 Top-end engine kit, 620 HP/576 lbs.-ft., each



Test Engine: 10.5:1 compression 446 c.i.d. with Trick Flow PowerPort® 240 cylinder heads (TFS-61617802-C00), Trick Flow Track Max™ hydraulic roller camshaft (TFS-61602003), 1.5 ratio rocker arms, Trick Flow Track Heat® intake manifold (TFS-61600113), Trick Flow Track Heat Pro 950 cfm carburetor (TFS-20950R), Hooker Super Competition headers with 1<sup>7</sup>/<sub>8</sub> primaries, open exhaust.

# Trick Flow by Cometic MLS Head Gaskets <sup>a</sup> for Big Block Mopar



Sealing aftermarket cylinder heads to an engine can be tough. The best method we've found is to use these multi-layer steel head gaskets from Trick Flow and Cometic. With three layers of stainless steel, these gaskets offer better sealing, less distortion, and better torque retention versus conventional or composite head gaskets—especially in high horsepower, high cylinder-pressure applications.

TFS-61694350-040 MLS head gasket, 4.350" bore, .040" thick, each TFS-61694380-040 MLS head gasket, 4.350" bore, .051" thick, each TFS-61694380-051 MLS head gasket, 4.380" bore, .040" thick, each TFS-61694500-040 MLS head gasket, 4.380" bore, .051" thick, each TFS-61694500-051 MLS head gasket, 4.500" bore, .051" thick, each MLS head gasket, 4.500" bore, .051" thick, each





Trick Flow's Track Heat high-rise single plane intake manifolds for big block Mopar are designed for engines that operate in the 3,000-7,000 plus RPM range. The one-piece spider-type design uses extended, high flow runners and a raised plenum floor to significantly increase horsepower and torque. Other important features include A319 aluminum construction, integral bosses for nitrous nozzles, and extra material for custom port work. These intake manifolds work with all square bore-style carburetors. Overall height to the carburetor mounting pad for the 383/400 manifold is 5.750", and the overall height to the mounting pad on the 440 manifold is 6.250".

**NOTE:** Fits Trick Flow PowerPort 240 and 270 cylinder heads; port matching recommended when used with PowerPort 270 heads.

TFS-61600111 Manifold, 383/400, each TFS-61600113 Manifold, 440, each

# Cylinder Head Bolt Kit for Big Block Mopar



Keep combustion where it belongs! Trick Flow's high-quality cylinder head bolt kit provides consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. A black oxide finish protects them from wear and corrosion. The kit contains all the bolts you need to install a pair of heads, including hardened washers.

TFS-92025 Cylinder head bolt kit, hex head, each

# Cylinder Head Stud Kit for Big Block Mopar

Keep your cylinder heads mounted securely in high compression, high-boost applications! Trick Flow's cylinder head stud kit features precision centerless-ground studs thread-rolled to Mil-S-8879 specs. The studs' black oxide finish protects them from wear and corrosion, and hardened parallel washers are included for uniform load distribution and accurate torque readings. The kit contains enough studs and washers to install one pair of cylinder heads.

TFS-61604304 Cylinder head stud kit, hex head, each

# Trick Flow by Cometic MLS Exhaust Gaskets for Big Block Mopar



These superior quality exhaust gaskets from Trick Flow and Cometic offer better torque retention and less distortion compared to conventional exhaust gaskets.

The gaskets are constructed from multiple layers of stainless steel for outstanding corrosion resistance and will not burn through or push out, even under extreme cylinder pressures. No sealants are required for installation; gaskets are .030" thick.

TFS-61690931 MLS exhaust gaskets, big block Mopar, 1.460" x 1.780" rectangular port shape, pair

# Camshaft • Roller Lifters • Valley Plate Kits • Harmonic Dampers • Valve Covers • Camshaft Installation Handle • Transmission Pan for Big Block Mopar

# Track Max® Hydraulic Roller Camshaft for Big Block Mopar

Get significant horsepower and torque increases with Trick Flow's Track Max camshaft. It is dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The cam is cut from a premium blank core and checked for proper hardness before being precision ground to exact tolerances.





Camshaft Specifications				
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.5 Rocker Arms	Lobe Sep.
TFS-61602003	Lopey idle, good midrange to strong top-end power, 3,000-6,500 RPM powerband. Stall converter recommended. Compression: 10:1 minimum. With 3-bolt gear attachment.	243°/247°	.600"/.600"	108°



# **Hydraulic Retro-Fit Roller Lifters**

Trick Flow hydraulic retro-fit roller lifters are designed for roller camshaft conversions in engines originally equipped with hydraulic flat tappet cams. These affordable lifters are manufactured to factory tolerances for an exact fit and to provide precise oil control to keep your engine running smoothly. Special length pushrods may be required.

TFS-21400010 Lifters, 273-360, set of 16 TFS-21400011 Lifters, 383-440, set of 16



# **Valley Plate Kits** for Big Block Mopar

These Trick Flow valley plate kits are just the ticket for racers and performance enthusiasts that need fast access to the lifter valley or want to swap in a new cam without removing the cylinder heads. Made from highstrength 6061-T6 billet aluminum to eliminate leaks and withstand bending under extreme engine temperatures. Hardware included.

NOTE: For use with Trick Flow PowerPort 270 cylinder heads only. Not recommended for Trick Flow PowerPort 240 or factory big block Mopar cylinder heads.

TFS-61600820 Valley plate kit, 383/400, each TFS-61600830 Valley plate kit, 440, each

# **Track Max® Harmonic Dampers**

Put Trick Flow's advanced engineering to work for you with a Track Max harmonic damper. Engineered for safety and power, these SFI 18.1 rated, carbon steel dampers contain an injection-molded and bonded elastomer and come with removable counterweights. They also have engraved timing marks for easy adjustment and a corrosionresistant black powdercoat finish for durability.

Damper, Chrysler 273-360, internal balance, each TFS-19010 Damper, Chrysler 318-360, external balance, each TFS-19011 TFS-19012 Damper, Chrysler 383-440, neutral balance, each



# **Cast Aluminum Valve Covers** for Big Block Mopar

Trick Flow cast aluminum valve covers for big block Mopar are made from durable A319 aluminum, which is much less prone to flex and distortion than stamped steel covers to prevent oil leaks. The covers clear most roller rocker arms, have added clearance for the distributor, and can be drilled to accept breathers.

TFS-61600802 Valve covers, silver, pair TFS-61611802 Valve covers, black, pair TFS-6160B802 Valve covers, natural, pair



Trick Flow's patented camshaft installation handle\*makes installing and removing cams much easier. It features an innovative U-shape design for more leverage when you need it most and a cushioned handle for comfort. The handle is 8" long and includes a universal mounting pattern to fit all types of camshafts, plus a protective zinc finish to protect it against corrosion.

TFS-90150 Camshaft installation handle, each \*This product is protected under U.S. patent number D664,017.





TFS-19012

#### **Transmission Pan**

Trick Flow transmission pans is made from A319 cast aluminum. It holds between one to three extra quarts of fluid (depending on application) and is finned to help the transmission dissipate heat faster for maximum efficiency. The pan comes complete with mounting bolts, drain plug, filter extension, and a new gasket (where applicable).

TFS-1009 Transmission pan kit, Chrysler A-727 Torqueflite, each



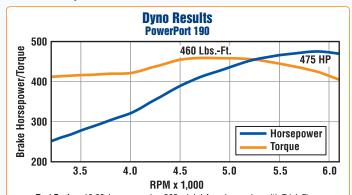


PowerPort 190 cylinder heads fit all non-emissions Chrysler 318, 340, and 360 engines, including both the LA and Magnum-series, giving builders a truly 'best of both worlds' scenario.

Like all of Trick Flow's top-quality cylinder heads, the PowerPort 190 heads are made from A356-T61 aluminum because it's much lighter but still every bit as strong as cast iron. The intake runners have been enhanced to increase airflow, and both intake and exhaust runners feature Trick Flow's special CNC Street Ported treatment that combines premium quality CNCmachining with a standard resolution finish that's perfect for making more power.

That's not all. Newly designed rocker arm shaft mounting bosses are stronger than the OE design, and larger diameter pushrod holes have been incorporated to accommodate 3/8" pushrods for use with flat tappet and hydraulic roller camshafts. Bronze alloy valve guides, ductile iron valve seats, and multi-angle valve seats further increase performance and durability. Assembled cylinder heads include premium 11/32" stainless steel valves, Trick Flow by PAC Racing valve springs, steel valve stem locks, and have chromoly and titanium retainer options.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.92:1 compression 365 c.i.d. LA-series engine with Trick Flow PowerPort 190 cylinder heads (TFS-61417802-C00), custom hydraulic roller camshaft (230°/236° duration @ .050°; .577'/.572" lift; 110° lobe separation), Trick Flow roller lifters (TFS-21400010), Trick Flow Track Heat® intake manifold (TFS-61400111), Trick Flow by Quick Fuel Technology Track Heat 750 cfm carburetor (TFS-20750R), Trick Flow billet aluminum carburetor spacer (TFS-2141501B), Hooker Super Competition headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers.

## PowerPort 190 Heads, CNC Street Ported Runners, Assembled

TFS-61417801-C00 1.460" dual valve springs, 190cc intake runners 1.550" dual valve springs, 190cc intake runners TFS-61417802-C00 TFS-6141T783-C00 1.550" dual valve springs and titanium retainers, 190cc intake runners

TFS-6141T784-C00 1.560" dual valve springs and titanium retainers, 190cc intake runners



Hot on the heels of Trick Flow's new PowerPort 190 cylinder heads for small block Mopar is this matching single plane Track Heat® intake manifold. Perfect for all 273-360 Mopar LA V8 engines making peak power in the 3,000-7,000 RPM range, the manifold is precision CNC-machined from A319 aluminum. It features a one-piece spider-type design with extended high-flow runners and a raised plenum floor to significantly increase horsepower and torque. Trick Flow also engineered in bosses for nitrous nozzles and provided extra material for custom port work. The manifold works with all 4150-style square bore carburetors and has a carb mounting pad height of 5.125".

TFS-61400111 Manifold, each

**Specifications** 

A356-T61 aluminum Material: Combustion Chamber Volume: 60cc CNC-profiled
Intake Port Volume: 190cc CNC Street Ported Intake Port Volume: Intake Port Location: Standard

1.160" x 2.270" Intake Port Dimensions: Fel-Pro 1213 Intake Gaskets: Intake Valve Diameter: 2.020" (TFS-61400211)

TFS-6141T784-C00

Ductile iron (TFS-61400271) Intake Valve Seat: 81cc CNC Street Ported Exhaust Port Volume:

Exhaust Port Location: Stock **Exhaust Port Dimensions:** 1.250" x 1.400" Exhaust Gaskets: Fel-Pro 1413

Exhaust Valve Diameter: 1.570" (TFS-61400212) Exhaust Valve Seat: Ductile iron (TFS-30600272) Valve Angles:

Valve Guide Material: Bronze alloy (TFS-52600251) Valve Seals: Viton® fluoroelastomer canister

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.740"

Valve Stem Locks:

Rocker Arms, LA:

Valve Spring I.D. Locators: 1.500" x .060" (TFS-21400440)

Valve Spring Retainers: 7° x 1.500" o.d. chromoly steel (TFS-51400423)

10° x 1.550" o.d. chromoly steel (TFS-21400425) 10° x 1.550" o.d. titanium (TFS-214T0520)

10° x 1.550" o.d. titanium (TFS-214T0525) 7° machined steel (TFS-51400444) or 10° machined steel (TFS-52400444)

1.460" o.d. dual spring (TFS-16893-16) 120 lbs. @ 1.900" installed height 394 lbs. @ 1.175" open Valve Springs, Standard:

390 lbs. @ 1.175 Open 390 lbs. per inch rate .650" max. valve lift 1.550" o.d. dual spring (TFS-16094-16) 138 lbs. @ 1.950" installed height Valve Springs, Option 1: 430 lbs. @ 1.250" open

420 lbs. per inch rate

.680" max. valve lift 1.560" o.d. dual spring (TFS-16318-16) Valve Springs, Option 2:

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open

500 lbs. per inch rate .700" max. valve lift

Harland Sharp S70025K (1.5 ratio) or Harland Sharp S70026K (1.6 ratio) Harland Sharp S72025K (1.5 ratio) or

Rocker Arms, Magnum: Harland Sharp S72026K (1.6 ratio)

Rocker Shaft Studs: TFS-61400613

Minimum Bore Diameter: 3.830"

TFS-92030 (bolts) or TFS-61404304 (studs) Cylinder Head Bolts/Studs: Head Gaskets: TFS-61494040-040 or TFS-61494080-040

Autolite 3924 Spark Plugs:

NOTE: Magnum engines must use the recommended Harland Sharp shaft mount roller rocker arms for proper rocker arm oiling.

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AITIOW KESUITS PowerPort 190				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	66	54		
.200"	134	121		
.300"	200	181		
.400"	248	213		
.500"	281	231		
.600"	293	237		
.700"	301	240		
Tooto	conducted at 00" of water (pro-	noura)		

Al-dam Damila

Tests conducted at 28" of water (pressure). Bore size: 4.000"; exhaust with 1\%" pipe.

GenX® 260 Square Port Cylinder Heads for GM LS7

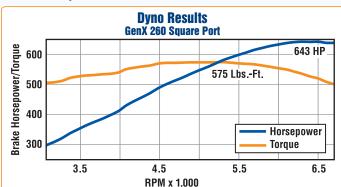
Trick Flow's GenX 260 square port cylinder heads for GM LS7 meet the needs of enthusiasts using LS-based engine blocks with a 4.100" or larger bore diameter. To improve the factory design, Trick Flow added more material to the A356-T61 aluminum castings for increased rigidity and strength. Then Trick Flow improved the valvetrain system by integrating one-piece modular, 2024-T4 billet aluminum rocker arm mounts that are removable for high-end shaft rocker setups. CNC Competition Ported runners with a premium high resolution surface finish provide all-out air flow.

Other major improvements include 6-bolt per cylinder clamping for GMPP LSX and other aftermarket engine blocks (some models), clearance for 3/8" pushrods, through-deck coolant holes to fit all GM LS gasket and block combinations, and powdered-metal valve guides.

The GenX 260 heads work with all LS7-style intake manifolds. The heads maintain the factory intake and exhaust port locations, valve angles, and valve locations to work with LS7-based pistons. **CARB** 

GenX 260 heads are emissions-legal under CARB E.O. #D-747 for 2006-present GM vehicles with 7.0L engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 11.7:1 compression GM 7.0L LS7 with Trick Flow GenX® 260 cylinder heads (TFS-3271T004-C01), custom hydraulic roller camshaft (229°/246° duration @ .050"; .651"/.651" lift; 115° lobe separation), factory GM LS7 rocker arms and intake manifold, Kooks headers with 1 7/8" primaries, 3" dual exhaust with Flowmaster mufflers.

#### GenX 260 Heads, CNC Competition Ported Runners, Assembled

TFS-32710001-C01 TFS-32710002-C01 TFS-3271T001-C01

1.300" dual valve springs (370 lbs./in.), 260cc intake runners 1.300" dual valve springs (448 lbs./in.), 260cc intake runners

1.300" dual valve springs (370 lbs./in.) and titanium retainers, 260cc intake runners

TFS-3271T002-C01

1.300" dual valve springs (448 lbs./in.) and titanium retainers, 260cc intake runners

TFS-3271T003-C01

1.300" dual valve springs (370 lbs./in.), titanium retainers. and 6-bolt mounting pattern, 260cc intake runners

TFS-3271T004-C01

.300" dual valve springs (448 lbs./in.), titanium retainers, and 6-bolt mounting pattern, 260cc intake runners

Airflow Results Genx 260 Square Port			
Intake Flow CFM	Exhaust Flow CFM		
71	58		
148	113		
233	168		
296	212		
340	237		
375	249		
393	254		
	71 148 233 296 340 375		

Tests conducted at 28" of water (pressure). Bore size: 4.125"; exhaust with 2" pipe.

## **Specifications**

TFS-3271T004-C01

Material: A356-T61 aluminum Combustion Chamber Volume: 70cc CNC-profiled
Intake Port Volume: 260cc CNC Competition Ported

Intake Port Location: Stock LS7 Intake Port Dimensions: 2.400" x 1.370" LS7 square port

GM 89017852 Intake Gaskets: 2.200" (TFS-32700211) Ductile iron (TFS-53400271) Intake Valve Diameter: Intake Valve Seat: Exhaust Port Volume: 87cc CNC Competition Ported

Exhaust Port Location: Stock LS7 1.460" x 1.700" oval Exhaust Port Dimensions: Exhaust Gaskets: GM 12582179 1.600" (TFS-32600212) Exhaust Valve Diameter: Ductile iron (TFS-30600274) Exhaust Valve Seat: Valve Angles:

Valve Guide Material: Trick-Alloy powdered metal (TFS-30700252) Valve Seals: Viton® fluoroelastomer canister (TFS-30600455)

Exemnt

Valve Seat Angles: 45° x multi-angle Valve Spring Pocket Diameter: 1.480"

Valve Spring I.D. Locators: 1.300" (TFS-21400443)

Steel (TFS-21400410); titanium (TFS-214T0415) Valve Spring Retainers: Valve Stem Locks: 7° steel (TFS-30600444)

1.300" o.d. dual spring (TFS-16904-16) Valve Springs, Standard: 150 lbs. @ 1.800" installed height

400 lbs. @ 1.200" open 370 lbs. per inch rate .625" max. valve lift

1.300" o.d. dual spring (TFS-16306-16) Valve Springs, Optional:

155 lbs. @ 1.820" installed height 465 lbs. @ 1.200" open 448 lbs. per inch rate .650" max. valve lift

Rocker Arms: OEM LS7 with upgraded bearings or roller

rocker arms

Minimum Bore Diameter: 4.100

TFS-92010 (bolts) or ARP 234-4316 (studs) for pre-2004; TFS-92011 (bolts) or ARP 234-4317 Cylinder Head Bolts/Studs:

(studs) for 2004 and later

Head Gaskets, C01 Standard: TFS-30694160-045 or TFS-30694160-051 Head Gaskets, C01 6-Bolt:

TFS-30694125L051 and TFS-30694125R051 or TFS-30697185L051 and TFS-30694185R051

Pushrod Length: Longer than stock required

Spark Plugs: NGK 4177 NOTES: Assembled cylinder heads include rocker arm rail mount (TFS-327LS7).

Viton® is a registered trademark of DuPont Performance Elastomers.





Keep combustion where it belongs! Trick Flow's high-quality cylinder head bolt kits provide consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. The kit contains all the bolts you need to install a pair of heads.

TFS-92010 Cylinder head bolt kit, pre-2004 long-style.

torque-to-yield, each

TFS-92011 Cylinder head bolt kit, 2004 and later short-style,

torque-to-yield, each



CARB

# **GenX® 255 Square Port Cylinder Heads** for GM LS3

Trick Flow engineers combined the best features of GM's LS3 and LS7 cylinder heads with Trick Flow's own unique brand of race-winning engineering and technology to create the ultimate square port LS cylinder head for 4.000" and larger bore enginesthe GenX 255.

The heads feature fully CNC Competition Ported

square port runners with our premium high resolution surface finish for maximum airflow and performance potential. The valve angles have been changed from 15° to 12° to increase piston-to-valve clearance and allow the use of larger camshafts. The coolant holes through the head deck were redesigned to work with all LS head gasket and engine block combinations. Stock LS3 ports accommodate LS3-style intake manifolds and LS9/LSA

blower assemblies, plus the available 6-bolt-per-cylinder mounting pattern fits GMPP LSX and other aftermarket engine blocks.

GenX 255 heads are emissions-legal under CARB E.O. #D-747-1 for 2007-present GM vehicles with 6.2L engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Intake Port Location: Stock LS3 2.550" x 1.250" LS3 square port Intake Port Dimensions:

Intake Gaskets: GM LS3/L92 Intake Valve Diameter: 2.165" (TFS-32600211) Intake Valve Seat: Ductile iron (TFS-51600271-1) Exhaust Port Volume: 87cc CNC Competition Ported **Exhaust Port Location:** Stock LS3

Exhaust Port Dimensions: 1.460" x 1.700" oval Exhaust Gaskets: GM 12558573 Exhaust Valve Diameter: 1.600" (TFS-32600212) Exhaust Valve Seat: Ductile iron (TFS-30600274)

Valve Angles:

Valve Guide Material: Trick-Alloy powdered metal (TFS-30700252) Viton® fluoroelastomer canister (TFS-30600455) Valve Seals:

Valve Seat Angles: 45° x multi-angle 1.480"

Valve Spring Pocket Diameter: Valve Spring I.D. Locators:

Valve Spring Retainers:

Valve Stem Locks: Valve Springs, Standard:

1.400' (TFS-21400443) Steel (TFS-21400410); titanium (TFS-214T0415) 7° steel (TFS-30600444) 1.300" o.d. dual spring (TFS-16904-16) 150 lbs. @ 1.800" installed height

400 lbs. @ 1.200" open 370 lbs. per inch rate .625" max. valve lift

Valve Springs, Optional: 1.300" o.d. dual spring (TFS-16306-16) 155 lbs. @ 1.820" installed height

465 lbs. @ 1.200" open 448 lbs. per inch rate .650" max. valve lift

Rocker Arms,

Standard Valve Springs: OEM LS3 with upgraded bearings or

roller rocker arms

Rocker Arms,

Optional Valve Springs: Roller rocker arms recommended

Minimum Bore Diameter:

Cylinder Head Bolts/Studs: TFS-92010 (bolts) or ARP 234-4316 (studs) for pre-2004; TFS-92011 (bolts) or ARP 234-4317

(studs) for 2004 and later

Head Gaskets, C01 Standard: TFS-32694100-045 or TFS-32694100-051

C01 6-Bolt: TFS-30694125L051 and TFS-30694125R051 or

TFS-30694185L051 and TFS-30694185R051

Pushrod Length: Longer than stock required

Spark Plugs: NGK 4177 NOTES: Assembled cylinder heads include new rocker arm rail mounts (TFS-326LS3) for use with LS3 1.7 ratio rocker arms. The OEM LS3 rocker arm rail mounts will not work with GenX 255 heads.

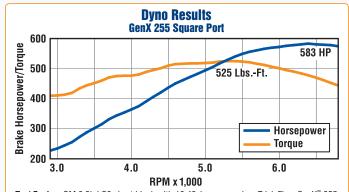
Cylinder heads with the optional 6-bolt mounting pattern do not fit 2010 and later Chevrolet Camaro OEM exhaust manifolds; aftermarket headers are required.

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These 1/2" thick aluminum spacers give GM LS owners the clearance they need to run shaft-mount rockers. Fit 1999-2006 engines with centerbolt valve covers; include gaskets and mounting hardware.

TFS-3060800 Valve cover spacers, pair



Test Engine: GM 6.2L LS3 short block with 10.43:1 compression, Trick Flow GenX® 255 square port cylinder heads (TFS-3261T002-C01), Trick Flow Track Max® hydraulic roller cam (TFS-32603001), stock L92 intake with 90mm throttle body, Kooks headers with 17/8" primaries, and dual exhaust with 3" Flowmaster mufflers.

#### GenX 255 Heads, CNC Competition Ported Runners, Assembled

TFS-32610001-C01 1.300" dual valve springs (370 lbs./in.), 255cc intake runners TFS-32610002-C01 1.300" dual valve springs (448 lbs./in.), 255cc intake runners TFS-3261T001-C01 1.300" dual valve springs (370 lbs./in.) and titanium retainers, 255cc intake runners

TFS-3261T002-C01 1.300" dual valve springs (448 lbs./in.) and titanium retainers, 255cc intake runners

TFS-3261T003-C01 1.300" dual valve springs (370 lbs./in.), titanium retainers, and 6-bolt pattern. 255cc intake runners

TFS-3261T004-C01 1.300" dual valve springs (448 lbs./in.), titanium retainers, and 6-bolt pattern, 255cc intake runners

Airflow Results Genx 255 Square Port				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	71	59		
.200"	146	113		
.300"	231	171		
.400"	294	215		
.500"	334	240		
.600"	363	252		
.700"	382	258		

Tests conducted at 28" of water (pressure). Bore size: 4.065"; exhaust with 2" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

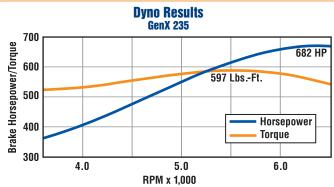
GenX<sup>®</sup> 205, 215, 225, 235, and 245 Cathedral Port Cylinder Heads for GM LS Vortec, LS1, LS2, and LSX

CARB

These Trick Flow GenX cathedral port cylinder heads are fully CNC-machined to significantly increase the performance of GM LS-powered vehicles. Trick Flow engineers altered the valve angles from 15° to 13.5° to decrease valve shrouding, increase mid-lift airflow, and improve rocker arm-to-valve cover clearance. Material added at the rocker arm mounting points increases high-RPM valvetrain stability. The spark plugs were relocated in the CNC-profiled combustion chambers to enhance mid-lift airflow and increase the rigidity of the casting for extreme horsepower applications. Top-of-the-line CNC Competition Ported runners have a premium high resolution surface finish for maximum flow and performance.

These heads are emissions-legal under CARB E.O. #D-747 for 1997-present GM vehicles with 4.8L, 5.3L, 5.7L, and 6.0L engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.8:1 compression GM LSX 440 c.i.d. with Trick Flow GenX<sup>®</sup> 235 cathedral port cylinder heads (TFS-3061T001-C03), Lunati custom hydraulic roller camshaft (262°/270° duration @ .050"; .629",629" lift; 114° lobe separation), Jesel 1.7 ratio roller rocker arms, FAST 90mm intake manifold, Kooks headers with 2" primaries, 3½" dual exhaust with Flowmaster mufflers.

# GenX 205 Heads for GM LS 4.8L/5.3L/5.7L (Vortec), CNC Competition Ported Runners, Assembled

# GenX 215, 225, 235, and 245 Heads for LS1, LS2, and LSX, CNC Competition Ported Runners, Assembled

TFS-30610001-C01 LS1, 215cc intake runners
TFS-3061T001-C01 LS1, 215cc intake runners
LS1, titanium retainers, 215cc intake runners
LS2, 225cc intake runners
TFS-3061T001-C02 LS2, titanium retainers, 225cc intake runners
TFS-3061T001-C03 LSX, titanium retainers, standard bolt pattern, 235cc intake runners

TFS-3061T003-C03 LSX, titanium retainers, 6-bolt pattern, 235cc intake runners TFS-3061T003-C04 LSX, titanium retainers, 6-bolt pattern, 245cc intake runners

Airflow Results GenX 235				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	65	55		
.200"	144	120		
.300"	229	178		
.400"	287	223		
.500"	323	239		
.600"	340	245		

Tests conducted at 28" of water (pressure). Bore size: 4.125"; exhaust with  $1\frac{7}{8}$ " pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search."



Material: A356-T61 aluminum Combustion Chamber Volume: C00: 58cc CNC-profiled

C01: 64cc CNC-profiled C02: 65cc CNC-profiled C03/C04: 70cc CNC-profiled

Intake Port Volume: C00: 205cc CNC Competition Ported C01: 215cc CNC Competition Ported C02: 235cc CNC Competition Ported C02: 235cc CNC Competition Ported C03: 235cc CNC C03

C02: 225cc CNC Competition Ported C03: 235cc CNC Competition Ported C04: 245cc CNC Competition Ported

TFS-30510001-C00

**USA** 

Intake Port Location: Stock

| Intake Port Dimensions: | 3.250" x 1.070" cathedral | Cathedral OEM GM 0-ring style | C00: 2.000" (TFS-30500211) | C01: 2.040" (TFS-30600210) | C03: 2.080" (TFS-30600209) | C04: 2.100" (TFS-30600208) | C04: 2.100" (TFS-30600208) | C04: 2.100" (TFS-30600208) | C04: 2.100" (TFS-30600208) | C05: 2.000 |

Intake Valve Seat: C00: Ductile iron (TFS-30300271)
C01/C02/C03/C04: Ductile iron interlock

(TFS-51600271)
Exhaust Port Volume: 80cc CNC Competition Ported

Exhaust Port Location: Stock

Exhaust Port Dimensions: 1.460" x 1.670" oval Exhaust Gaskets: GM 12617944

Exhaust Valve Diameter: C00/C01/C02: 1.575" (TFS-30600212) C03/C04: 1.600" (TFS-30600213) Exhaust Valve Seat: C00: Ductile iron (TFS-30600272) C01/C02/C03/C04: Ductile iron interlock

(TFS-30600274)

Valve Angles: 13.5°

Valve Guide Material: C00: Trick-Alloy powdered metal (TFS-30600252)
C01/C02/C03/C04: Bronze alloy (TFS-30600251)
Valve Seals: Viton® fluoroelastomer canister (TFS-30600455)

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.480" Valve Spring I.D. Locators: 1.300"

Valve Spring I.D. Locators: 1.300" (C00: TFS-21400443; C01/C02/C03/C04: TFS-21400442)

Valve Spring Retainers: 7° x 1.300" o.d. chromoly steel (TFS-21400410) 7° x 1.300" o.d. titanium (TFS-214T0415) Valve Stem Locks: 7° steel with bead lock (TFS-30600444)

Valve Springs: 7 Steel with bead look (113-30000444)

1.300" o.d. dual spring (TFS-16306-16)

150 lbs. @ 1.800" installed height 438 lbs. @ 1.200" open 448 lbs. per inch rate

.600" maximum valve lift
Rocker Arms: C00: Roller rocker arms recommended

C01/C02/C03/C04: Roller rocker arms required

Minimum Bore Diameter: C00: 3.780" C01: 3.900"

C02: 4.000" C03/C04: 4.125"

Cylinder Head Bolts/Studs: TFS-92010 (bolts) or ARP 234-4316 (studs) for

pre-2004; TFS-92011 (bolts) or ARP 234-4317

(studs) for 2004 and later

Head Gaskets, C00/C01: TFS-30694030-045 or TFS-30694030-051
C02/C03 Standard: TFS-30694060-045 or TFS-30694060-051
TFS-30694125L051 and TFS-30694125R051 or TFS-30694185R051

Pushrod Length: Longer than stock required

Spark Plugs: NGK 4177

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CARB

# **GenX® 220 Cathedral Port Cylinder Heads** for GM LS1 and LS2

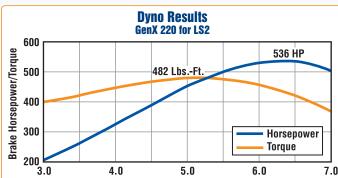
value in GM LS performance. The cathedral port GenX 220 heads incorporate the features of Trick Flow's fully CNC-ported LS heads (13.5° valve angles, decreased valve shrouding, increased mid-lift airflow, relocated spark plugs, CNC-profiled combustion chambers with port-to-valve seat blending (bowl blending), improved rocker arm/ valve cover clearance, and rigid casting design) in a more affordable "Fast As Cast®" version that flows nearly as much air as our CNC Competition Ported heads. The special Fast As Cast runner design duplicates the port shape and profile of fully CNC-ported runners, resulting in

Trick Flow GenX 220 cylinder heads are the best

near-CNC-ported performance for the same price as regular cast cylinder heads. These heads are emissions-legal under CARB E.O. #D-747 for

Cylinder heads are available fully assembled or as bare castings. Sold individually.

1997-present GM vehicles with 5.7L and 6.0L engines.



Test Engine: 10.1:1 compression GM 6.0L with Trick Flow GenX® 220 cathedral port cylinder heads (TFS-3061T002), Trick Flow Track Max® hydraulic roller camshaft (TFS-30602003), Harland Sharp 1.7 ratio roller rocker arms, FAST 90mm intake manifold, Kooks headers with 17/8" primaries, 3" dual exhaust with Flowmaster mufflers.

**RPM x 1,000** 

#### GenX 220 Heads, Fast As Cast Runners, Assembled

TFS-30610001 LS1, 220cc intake runners

TFS-3061T001 LS1, titanium retainers, 220cc intake runners

TFS-30610002 LS2, 220cc intake runners

TFS-3061T002 LS2, titanium retainers, 220cc intake runners

	Airflow Results GenX 220 for LS1	
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	67	47
.200"	133	104
.300"	211	167
.400"	261	202
.500"	292	222
.600"	305	233
Tests	conducted at 28" of water (pro	essure).

Bore size: 3.900": exhaust with 1\%" pipe.

# **Active Fuel Management Delete Kit**

The problem: most performance camshafts for GM LS engines do not work well on engines equipped with Active Fuel Management (AFM). The solution? A Trick Flow Active Fuel Management Delete Kit!

This kit includes everything to completely remove the AFM cylinder deactivation hardware. This includes GM LS7 hydraulic roller lifters, a valve lifter guide set, new head bolts, PVC hose, PVC plug, head gaskets, and an engine valley cover.

A programmer capable of disabling the AFM software (sold separately) is required for proper engine operation.

TFS-30678503 Active fuel management delete kit, 2007-14 5.3L-6.2L GM LS, each

**Specifications** 

Material: A356-T61 aluminum Material: ASSO-TOT Administration Combustion Chamber Volume: 01: 64cc CNC-profiled 02: 65cc CNC-profiled 220cc Fast As Cast

TFS-3061T001

Intake Port Volume: Intake Port Location: Stock

3.250" x 1.070" cathedral Intake Port Dimensions: Cathedral OEM GM O-ring style 01: 2.040" (TFS-30600211) 02: 2.055" (TFS-30600210) Intake Gaskets: Intake Valve Diameter:

Intake Valve Seat: Ductile iron interlock (TFS-51600271)

Exhaust Port Volume: 80cc Fast As Cast

**Exhaust Port Location:** Stock **Exhaust Port Dimensions:** 

1.460" x 1.670" oval Exhaust Gaskets: GM 12617944 1.575" (TFS-30600212) Exhaust Valve Diameter:

Exhaust Valve Seat: Ductile iron interlock (TFS-30600274) Valve Angles:

Valve Guide Material: Bronze alloy (TFS-30600251)

Viton® fluoroelastomer canister (TFS-30600455) Valve Seals:

45° x multi-angle Valve Seat Angles:

Valve Spring Pocket Diameter: 1.480"

Valve Spring I.D. Locators: 1.300" (TFS-21400442)

Valve Spring Retainers: 7° x 1.300" o.d. steel (TFS-21400410) 7° x 1.300" o.d. titanium (TFS-214T0415) Valve Stem Locks: 7° steel bead lock (TFS-30600444) 1.300" o.d. dual spring (TFS-16306-16) 150 lbs. @ 1.800" installed height Valve Springs:

438 lbs. @ 1.200" open 448 lbs. per inch rate .600" maximum valve lift

TFS-92010 (bolts) or ARP 234-4316 (studs) for pre-2004; TFS-92011 (bolts) or ARP 234-4317 Cylinder Head Bolts/Studs:

(studs) for 2004 and later

Roller rocker arms required Rocker Arms:

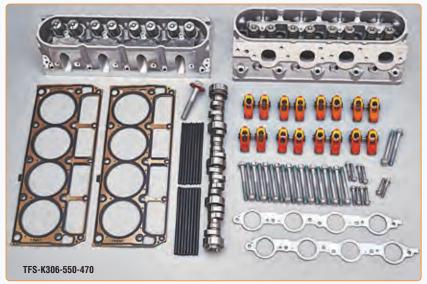
Minimum Bore Diameter: 01:3 900"

02: 4.000" 01: TFS-30694030-045 or TFS-30694030-051 02: TFS-30694060-045 or TFS-30694060-051 Head Gaskets:

Pushrod Length: Longer than stock required

Spark Plugs: NGK 4177 Viton® is a registered trademark of DuPont Performance Elastomers.





# **GenX Top-End Engine Kits for GM LS**

Don't waste time trying to figure out which parts you need to get the performance you want—Trick Flow has already done the work for you!



Trick Flow's GenX top-end engine kits for GM LS are designed and dyno-tested to deliver the performance you want for less than purchasing the parts separately. Each kit includes a pair of Trick Flow GenX CNC Competition Ported cylinder heads, a specially matched Track Max® hydraulic roller cam, Harland Sharp roller rocker arms (except TFS-K326-580-520), heat-treated chromoly pushrods, performance head and exhaust gaskets, Trick Flow head bolts, and balancer bolt. GenX top-end kits are not recommended for vehicles with flex fuel or active fuel management. Tuning is required for maximum performance.

**NOTE:** The top-end kit for GM LS3 (TFS-K326-580-520) does not include roller rocker arms. It is recommended that builders use OEM rocker arms with upgraded bearings.

#### **GenX Top-End Engine Kits for GM LS1**

TFS-K306-485-460
TFS-K306-500-460
TFS-K306-515-460
TOp-end engine kit, 485 HP/460 lbs.-ft. torque, each
Top-end engine kit, 500 HP/460 lbs.-ft. torque, each
Top-end engine kit, 515 HP/460 lbs.-ft. torque, each

**NOTE:** These kits were dyno-tested on a stock GM 5.7L LS1 short block with 10.5:1 compression, Trick Flow GenX 215 cathedral port cylinder heads (TFS-3060T001-C01), Track Max hydraulic roller cam (TFS-30602001, TFS-30602002, or TFS-30602003, depending on application), and an LS6 intake manifold. 1997-98 engines require centerbolt valve covers (sold separately).

#### **GenX Top-End Engine Kit for GM LS2**

TFS-K306-550-470 Top-end engine kit, 550 HP/470 lbs.-ft. torque, each

**NOTE:** This kit was dyno-tested on a GM 6.0L LS2 short block with 10.86:1 compression, Trick Flow GenX 225 cathedral port cylinder heads (TFS-3060T001-C02), Track Max hydraulic roller cam (TFS-30602004), stock intake manifold with 90mm throttle body, Kooks headers with 1¾" primaries, and dual exhaust with 3" Flowmaster mufflers.

#### **GenX Top-End Engine Kit for GM LS3**

TFS-K326-580-520 Top-end engine kit, 580 HP/525 lbs.-ft. torque, each

**NOTE:** This kit was dyno-tested on a GM 6.2L LS3 short block with 10.43:1 compression, Trick Flow GenX 255 square port cylinder heads (TFS-3261T002-C01), Trick Flow Track Max hydraulic roller cam (TFS-32603001), stock L92 intake manifold with 90mm throttle body, Kooks headers with  $1\frac{1}{6}$ " primaries, and dual exhaust with 3" Flowmaster mufflers.

#### **GenX Top-End Engine Kit for GM LS Truck**

TFS-K305-455-425 Top-end engine kit, 455 HP/425 lbs.-ft. torque, each

**NOTE:** This kit was dyno-tested on a GM Performance Parts LS327 short block engine with Trick Flow GenX 205 cathedral port cylinder heads (TFS-30500001-C00), Track Max hydraulic roller cam (TFS-30602001), chromoly pushrods (TFS-21407500), Harland Sharp roller rocker arms, and stock GM LS truck intake manifold and 78mm throttle body.

#### **GenX Top-End Engine Kit Dyno Results** TFS-K306-485-460 600 Horsepower/Torque 485 HP 500 460 l hs -Ft 400 Horsenowei 300 Torque 200 4.0 6.0 5.0 TFS-K306-500-460 600 500 HP Horsepower/Torgu 500 460 Lbs. Ft 400 Horsepower 300 Brake Torque TFS-K306-515-460 600 515 HP 500 460 Lbs.-F 400 Horsepower 300 Torque RPM x 1 nnn TFS-K306-550-470 600 556 HP Torque 500 Brake Horsepower 475 Lbs. Ft. 400 300 Horsepowe Torque 3.5 6.5 TFS-K326-580-520 600 Brake Horsepower/Torque 583 HP 500 525 Lbs.-Ft. 400 300 Horsepowe **Torque** 200 6 N RPM x 1,000 TFS-K305-455-425 500 456 HP Horsepower/Torane 426 Lbs.-FI 400 300 Horsepowe 200 Torque 3.0 6.0 4.0 RPM x 1.000

TES-30602001

# Track Max® Hydraulic Roller Camshafts for GM LS

Get significant horsepower and torque increases with Trick Flow Track Max camshafts.

The camshafts are dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The cams are cut from a premium blank core and checked for proper hardness before being precision ground to exact tolerances.

Camshaft Specifications				
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.7 Rocker	Lobe Sep.
TFS-30602001	Applications: All GM LS engines. Excellent idle, strong midrange power, 2,000-6,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.	216°/220°	.560"/.560"	114°
TFS-30602002	Applications: All GM LS engines. Good idle, strong midrange/top-end power, 2,500-6,300 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.	220°/224°	.575"/.575"	112°
TFS-30602003	Applications: All GM LS engines. Fair idle, good midrange/strong top-end power, 2,500-6,500 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.	228°/230°	.585"/.585"	112°
TFS-30602004	Applications: All GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.	238°/242°	.595"/.595"	112°
TFS-32603001	Applications: Optimized for GM LS3/L92 engines; works with all GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.	230°/238°	.625"/.625"	113°



These billet steel timing sets from Trick Flow for GM LS are engineered for durability and versatility. The .250" diameter, double-row true roller chain and black oxide-coated crank sprocket are heat-treated for unrivaled strength. The CNC-machined cam gear has nine crank sprocket keyways for zero and +/- 2°, 4°, 6°, or 8° timing adjustments. The timing marks are laser-etched.

TFS-30678533 Timing chain set, LS1, each TFS-30678534 Timing chain set, LS2, each

for GM LS

Timing chain set, 58X/4X camshaft sensor, 1-bolt, L92/LS3, each TFS-30778535 TFS-30778536 Timing chain set, 58X/4X camshaft sensor, 3-bolt, L92/LS3, each





# **Timing Chain Damper and Adapter Bracket for GM LS**

This timing chain damper from Trick Flow provides a small amount of tension on the timing chain to keep it from "whipping" during gear changes and damaging the engine. It's manufactured from durable OE-quality plastic and includes mounting bolts. The damper fits non-VVT (variable valve timing) GM LS2/L92/LS3 engines, and it should be replaced when changing camshafts or timing chain sets.

The timing chain damper adapter bracket allows the use of LS2 timing chain dampers on any GM LS engine block. The bracket uses the three lower cam/thrust retainer plate bolts for attachment. The bracket can also be used with aftermarket LS2 timing chain dampers (such as TFS-30675540) with the included hardware.

TFS-30675540 Timing chain damper, LS2/L92/LS3 non-VVT engines, each TFS-30675600 Timing chain damper adapter bracket, each

TFS-K30675600 Timing chain damper and adapter bracket kit, each



# Variable Valve Timing Delete Kits

The Variable Valve Timing found on GM LS engines, commonly referred to as VVT, is great for fuel economy but bad for making maximum horsepower. Many people choose to remove it, and a VVT delete kit is required when removing an Active Fuel Management (AFM) system.

These fully engineered Variable Valve Timing Delete Kits from Trick Flow include all of the components required to do the job right. The kits include a 4X camshaft gear, crankshaft gear, true roller timing chain and damper, LS2/LS3 timing cover, timing cover bolts, gasket, and seal, a 4X camshaft sensor, harness, and bracket, camshaft bolts, a camshaft sensor bolt, balancer bolt, and water pump gaskets.

TFS-30678504 Variable valve timing delete kit, 1-bolt camshafts,

2007-14 5.3L-6.2L GM LS, each

TFS-30678505 Variable valve timing delete kit, 3-bolt camshafts,

2007-14 5.3L-6.2L GM LS, each



# Trick Flow by PAC Racing **Valve Spring Upgrade Kits** for GM LS



Valvetrain control is critical in performance engines. Boost the performance of your GM LS-powered muscle car or truck with Trick Flow by PAC Racing valve spring sets or valve spring upgrade kits.

The PAC springs are manufactured from premium Pacaloy™ chrome-silicone steel that's double shot-peened beyond AMS (Aerospace Material Specifications) reliability standards for exceptional endurance.

#### **Drop-In Beehive Valve Spring Sets**

These PAC beehive valve springs are specifically designed as a drop-in upgrade for mildly modified engines. They work with the stock retainers, locks, locators, and seals.

TFS-16915-16 Drop-in valve spring set, chromoly retainers, 105 lbs. seat pressure @ 1.800" and 293 lbs. open pressure @ 1.200", 1.140" coil bind,

TFS-16918-16 Drop-in valve spring set, chromoly retainers, 130 lbs. seat pressure @ 1.800" and 318 lbs. open pressure @ 1.200", 1.140" coil bind,

#### Valve Spring Upgrade Kits

The PAC spring upgrade kits include everything you need to upgrade the valve springs on your mid-to-heavily modified LS engines with stock GM or Trick Flow LS heads. Kit contents include dual valve springs, retainers, locks, seals, .500" I.D. locators (except where noted), and instructions.

TFS-2500280\* Valve spring upgrade kit, chromoly retainers, 140 lbs. seat pressure @ 1.800" and 380 lbs. open pressure @ 1.200", 1.064" coil bind, each

TFS-2500285\* Valve spring upgrade kit, titanium retainers, 140 lbs. seat pressure @ 1.800" and 380 lbs. open pressure @ 1.200". 1.064" coil bind. each

TFS-2500295<sup>^</sup> Valve spring upgrade kit, chromoly retainers, 150 lbs. seat pressure @ 1.800" and 438 lbs. open pressure @ 1.200", 1.100" coil bind, each

TFS-2500300<sup>^</sup> Valve spring upgrade kit, titanium retainers, 150 lbs. seat pressure @ 1.800" and 439 lbs. open pressure @ 1.200", 1.150" coil bind, each

TFS-2500400<sup>†</sup> Valve spring upgrade kit, titanium retainers, 135 lbs, seat pressure @ 1.800" and 400 lbs. open pressure @ 1.200", 1.100" coil bind, each

\*OE rocker arm bearing upgrade kit recommended, part number SME-143002.

^Not recommended for use with OE rocker arms +Includes .570" I.D. locators.

# **Valve Spring Compressors**

If you work on engines, then you need a Trick Flow valve spring compressor. A must for servicing valve springs, retainers, and valve seals, our specially made tools easily remove valve springs—even while they're on the engine and still in the vehicle. The compressors are made from premium heat-treated steel for a long service life.



USA

TFS-90306 TFS-90307

Valve spring compressor, GM LS1/LS6/LS2, each Valve spring compressor, GM L92/LS3/L99/LS9, each



## **TFX™ EFI Fuel Rails** for GM LS

These TFX billet fuel rails from Trick Flow were developed to allow owners of high performance GM LS-powered vehicles to build custom fuel systems. Includes specially constructed mounting brackets to keep the fuel rails tucked in close to the engine to prevent hood and intake manifold interference.

NOTE: Fits 1997-2004 LS1 and 2001-04 LS6; does not fit LS2.

TFS-3068000R EFI fuel rails, pair



### **Rocker Arm Upgrade Components** for GM LS



As many have learned, the OE rocker arm bearing design is a proven weak link in high performance LS engines. One way to fix the problem is with a full set of high quality roller rocker arms. However, new rocker arms are very expensive. Trick Flow has another solution that will cure the bearing problem for far less money.

These rocker arm trunnion upgrade kits from Trick Flow include 16 stronger trunnions with circlip grooves that withstand the high valve spring pressures and repeated high RPM blasts common in performance applications. The kit also includes 32 bearings with precision made needles constructed to handle sustained racing use plus 32 retainer clips that eliminate the bearing walk-out problem of the OE design

The trunnion installation kit takes all of the hassle out of removing old trunnions and installing new ones. That's because the kit allows you to change the trunnions using just a bench vise instead of a cumbersome hydraulic press like other kits. Maybe best of all, no modifications are required to the OE rocker arms to use these upgrade and installation kits!

SME-143002 Trunnion upgrade kit, each SME-906011 Trunnion installation kit, each

SME-143002-2B Replacement trunnion shaft bearings, pair

## Flywheel Holding Tool Kit for GM LS

Keep the crankshaft still so you can properly torque the harmonic balancer bolt with Trick Flow's easy-to-use flywheel holding tool. Just as the name implies, the tool holds the flywheel still so the crankshaft can't turn and the harmonic balancer bolt can be tightened



to the correct torque specs. The tool is even-slotted so it can be used on engines mounted to an engine stand or installed in a vehicle, even if the engine has been swapped into an older chassis. Contents include the slotted flywheel holding tool, two spacers, two M10 x 1.5 x 80mm long bolts, and two 10mm flat washers.

TFS-90326 Flywheel holding tool kit, each





Trick Flow R-Series single plane intake manifolds for GM LS3 bring the simplicity of carbureted-style aspiration to this model of GM's aluminum powerhouse. The intakes are engineered to produce supreme power in heavily modified engines with 3,500-7,500 plus RPM powerbands.

Other significant features include A319 aluminum construction, a one-piece spider-type design, high-flow individual runners combined with a raised plenum floor, and extra material for custom porting. Manifold part number TFS-32600111 manifold includes integral bosses for adding nitrous and accepts Holley 4150-style square bore carburetors. Manifold part number TFS-32600112 features custom machined fuel injection nozzle ports that accept standard Bosch and Siemens-type fuel injectors. Overall height to the mounting pads for both versions of this manifold is 6.285".

#### **R-Series Intake Manifolds**

TFS-32600111 Manifold, square bore carburetor, each TFS-32600112 Manifold, carb-style EFI, each

## **TFX™ EFI Fuel Rails**

TFS-3268000R EFI fuel rails, carb-style EFI manifold, pair



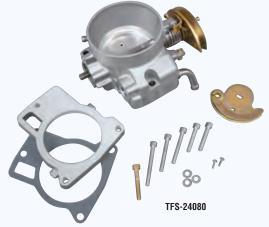


# TFX™ Fuel Injector Connectors and Adapters for GM LS

Trick Flow's TFX fuel injector connectors and adapters make swapping intake manifolds and fuel injectors on late-model GM LS-based engines quick and painless. No cutting is necessary, and they are made to OEM specifications for a secure connection and to keep the contacts free of water, dirt, and debris.

TFS-89200 Connector, EV1 injector, each

TFS-89201 Adapter, EV1 injector to EV6 harness, each
TFS-89202 Adapter, EV6 injector to EV1 harness, each
TFS-89205 Adapter kit, LS2/L92 harness to EV1 injector, each



# TFX™ EFI Throttle Bodies for GM LS

Add 5-15 more rear-wheel horsepower in less than an hour with a Trick Flow TFX EFI throttle body. The cast aluminum throttle bodies are crafted with hand-assembled butterflies for maximum quality and dependability. Idle adjustment is as easy as turning a screw, so you'll be enjoying that new power and responsiveness in no time. These throttle bodies benefit from multiple throttle linkages for a wide variety of custom installations. Includes gaskets and mounting hardware.

TFS-24080 Throttle body, 1998-2002 5.7L Chevrolet/Pontiac Camaro/Firebird,

2004 GTO, 80mm, each

TFS-24085 Throttle body, 1998-2002 5.7L Chevrolet/Pontiac Camaro/Firebird, 2004 GTO, 85mm, each





TFS-30600612

# d

# Steam Line Plumbing Kits and Accessories for GM LS

Trick Flow steam line plumbing kits and accessories allow owners of modified LS-powered cars and trucks to upgrade the factory steam tubes to the more desirable and easier-to-service race car plumbing system.

The plumbing kits are available two ways—just for the front of the heads or for all four corners. They include all of the necessary hose, fittings, and other components needed for installation. Plus, the components are available separately for those who want to design a custom system.

#### Steam Line Plumbing Kits, Black Rubber Hose

TFS-30600600 Steam line plumbing kit, front of heads only, each
TFS-30600601 Steam line plumbing kit, front and rear of heads, each

### Steam Line Plumbing Kits, Black Nylon Braided AN Hose

TFS-306SB600 Steam line plumbing kit, front of heads only, each TFS-306SB601 Steam line plumbing kit, front and rear of heads, each

# Steam Line Plumbing Kits, Stainless Steel Braided AN Hose

TFS-306S0600 Steam line plumbing kit, front of heads only, each TFS-306S0601 Steam line plumbing kit, front and rear of heads, each

#### Steam Line Individual Components

TFS-30600611 Steam line fitting, -4 AN male, each

TFS-30600612 Steam line cap, each

TFS-30600613 Steam line fitting, 1/8" female NPT, 90°, each

TFS-30600615 Cylinder head coolant sensor plug and seal, 12mm, each

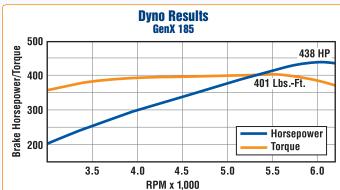
# **GenX® 185 and 195 Cylinder Heads** for GM LT1

Trick Flow GenX 185 cylinder heads for naturally aspirated GM LT1 engines retain the factory compression ratio and have standard resolution CNC-profiled combustion chambers to amplify performance. The valve angles were reduced to 21° to increase piston-tovalve clearance and unshroud the chambers for better airflow. Power-building Fast As Cast® runners duplicate the profiles of fully CNC-ported heads, resulting in high airflow rates without costly CNC-porting.

GenX 195 heads for forced induction engines retain the stock 23° valve angles and feature large, standard cast combustion chambers to reduce compression and large

Fast As Cast® runners to substantially increase horsepower and torque in boosted applications. Both versions retain the use of stock sensors and

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.42:1 compression 350 c.i.d. with Trick Flow GenX® 185 cylinder heads (TFS-30410008-M54), Trick Flow Track Max® hydraulic roller camshaft (TFS-31402081), Trick Flow 1.6 ratio roller rocker arms (TFS-31400513), stock GM intake manifold and 52mm throttle body, Hooker Super Competition headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers.

#### GenX 185 and 195 Heads, Fast As Cast Runners, Assembled

TFS-30410008-M54 Naturally aspirated engines, 21° valve angle, 185cc intake runners TFS-30410010 Forced induction engines, 23° valve angle, 195cc intake runners

Airflow Results Genx 185			
Lift Value	Intake Flow CFM	Exhaust Flow CFM	
.100"	65	48	
.200"	132	111	
.300"	195	151	
.400"	236	182	
.500"	258	198	
.600"	260	206	

Tests conducted at 28" of water (pressure). Bore size: 4.030"; exhaust with 13/4" pipe.

	Airflow Results GenX 195	
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	51	58
.200"	136	98
.300"	191	136
.400"	230	163
.500"	253	177
.600"	254	190
Test Bo	s conducted at 28" of water (pres re size: 4.030"; exhaust with 13/4"	ssure). pipe.



TFS-30410008-M54

Material: A356-T61 aluminum Combustion Chamber Volume: M54: 54cc CNC-profiled

10: 62cc standard Intake Port Volume: M54: 185cc Fast As Cast 10: 195cc Fast As Cast

23333

Intake Port Location: Stock M54: 1.220" x 2.120" 10: 1.280" x 2.090" Intake Port Dimensions:

Intake Gaskets: Fel-Pro 1284 Intake Valve Diameter: 2.020" (TFS-51400211)

Intake Valve Seat: M54: Ductile iron (TFS-30300271) 10: Ductile iron (TFS-51400271-1)

M54: 67cc Fast As Cast Exhaust Port Volume: 10: 72cc Fast As Cast

**Exhaust Port Location:** Stock

Exhaust Port Dimensions: 1.350" x 1.450" D-shape Fel-Pro 1404

Exhaust Gaskets:

Exhaust Valve Diameter: 1.600" (TFS-51400212) Exhaust Valve Seat:

M54: Ductile iron (TFS-30300272) 10: Ductile iron (TFS-51400272-1) M54: 21°

Valve Angles: 01:239

Valve Guide Material:

Bronze alloy (TFS-51400252) Viton® fluoroelastomer (TFS-51400454) Valve Seals:

Valve Seat Angles: 45° x multi-angle Valve Spring Pocket Diameter: M54: 1.615"

10: 1.615"; 1.500" for two center valve springs M54: 1.280" (TFS-31400433) Valve Spring Cups:

10: 1.500" (TFS-51400434)

M54: 7° x 1.250" o.d. chromoly steel (TFS-31400423) Valve Spring Retainers:

10: 7° x 1.460" o.d. chromoly steel

(TFS-31400424) 7° steel (TFS-51400444)

Valve Stem Locks: Valve Springs: M54: 1.275" o.d. dual spring with damper

(TFS-16306-16) 150 lbs. @ 1.800" installed height

420 lbs. @ 1.200" open

450 lbs. per inch rate .600" maximum valve lift

10: 1.460" o.d. dual spring with damper

(TFS-16315-16)

134 lbs. @ 1.800" installed height

405 lbs. @ 1.200" open 452 lbs. per inch rate .600" maximum valve lift M54: 5/16" (TFS-30400624-8)

Guideplates: 10: 5/16" (TFS-30400623-8) 3/8" (TFS-51400613) Rocker Arm Studs:

Rocker Arms:

TFS-31400512 (1.5 ratio, 3/8" studs) TFS-31400512 (1.5 ratio, 3/8" studs) TFS-31400514 (1.5 intake/1.6 exhaust ratio,

3/8" studs) 4 000"

Minimum Bore Diameter: Cylinder Head Bolts: TFS-92000 Head Gaskets: TFS-30494040-040 Pushrod Length: Longer than stock required M54: NGK 4177 or 3403 Spark Plugs: 10: NGK FR5 or Autolite 3924

NOTE: TFS-30400008-M54 includes LT1 and LT4 intake gasket alignment holes.

Viton® is a registered trademark of DuPont Performance Elastomers.

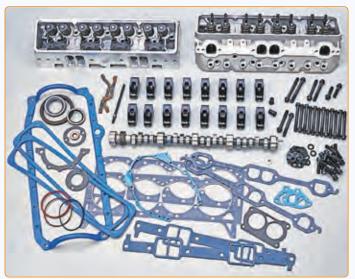


Exemn

# Track Max® Hydraulic Roller Camshaft for GM LT1 Get significant horsenower and torque increases with Trick Flow's Track Max camshaft. It is dyno-proven

Get significant horsepower and torque increases with Trick Flow's Track Max camshaft. It is dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The cam is cut from a premium blank core and checked for proper hardness before being precision ground to exact tolerances.

Camshaft Specifications				
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.5 Rocker Arms	Lobe Sep.
TFS-31402081	Fair idle, strong midrange power, 1,800-5,800 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 10.25:1 minimum.	220°/227°	.530"/.530"	113°

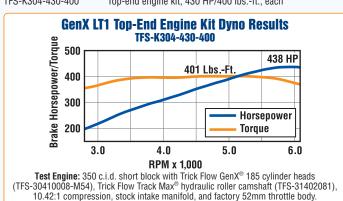


# GenX® Top-End Engine Kit for GM LT1

Get the most out of your GM LT1 with Trick Flow's top-end engine kit. Trick Flow engineers carefully tuned this kit to deliver optimum horsepower and torque—taking the time and guesswork out of designing a winning combination and saving you some hard-earned cash in the process.

GenX top-end kits for GM LT1 feature Trick Flow's GenX 185 21° heads to deliver increased power on naturally aspirated engines. These heads feature 54cc CNC-profiled combustion chambers with port-to-valve seat blending (bowl blending) and Fast As Cast® runners (185cc intake/67cc exhaust). You also get a Track Max® hydraulic roller camshaft, pushrod length checker, roller rocker arms, head bolts, and a gasket set.

TFS-K304-430-400 Top-end engine kit, 430 HP/400 lbs.-ft., each





If you're serious about wringing the maximum amount of power from your LT1, you must eliminate intake restrictions. The same engineers who designed the best LT1 heads available developed the best high-flow cold air intake kit and air inlet elbow available for your car, too!

Trick Flow's cold air intake kit for LT1 replaces the restrictive stock airbox with a freer-flowing unit and reusable cotton-gauze filter to dramatically increase airflow to the engine. The kit includes the airbox, filter, mounting hardware, and instructions. Manufactured by K&N for Trick Flow; emissions-legal under CARB E.O. #D-369-14.

#### **Cold Air Intake Kits**

TFS-23057 Cold air kit, 1993-97 5.7L LT1 Chevrolet/Pontiac Camaro/Firebird, each
TFS-23058 Cold air kit, 1994-96 5.7L LT1 Chevrolet Impala SS/Caprice, each



Replace the ugly, performance-robbing factory rubber elbow with Trick Flow's air inlet elbow. Designed to increase airflow and power and add a splash of dress-up under the hood, they eliminate the factory resonator tube and include all provisions for factory sensors. These elbows work with all stock air inlet systems and most brands of cold air intake kits.

#### **Air Inlet Elbows**

TFS-3150800 Air inlet elbow, aluminum, ceramic coated, each
TFS-3150801 Air inlet elbow, aluminum, black, each
TFS-315B800 Air inlet elbow, aluminum, natural, each

# **DHC™ 175 Cylinder Heads** for Small Block Chevrolet

Nostalgic appearance—check. Modern performance—check.

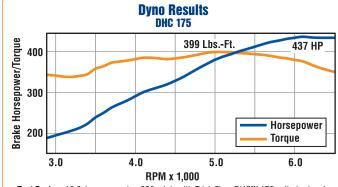
The best of both—checkmate!

Trick Flow's DHC 175 cylinder heads give small block Chevy enthusiasts a new performance option. No longer will anyone have to choose between vintage looks or modern cylinder head power-with DHC 175 heads you get both!

DHC 175 heads are made from premium grade A356-T61 aluminum and have the exterior styling and straight spark plug holes that deliver the nostalgic appearance customers want. On the inside, 60cc CNC-profiled combustion chambers with blended bowl machining under the valves and small cross-section intake runners promote low-RPM torque increases and boost high-RPM horsepower. The runners are finished with Trick Flow's superior Fast As Cast® process that precisely duplicates the runner profile and performance levels of fully CNC-ported heads without the added machining cost. In keeping with the vintage design, the heads are available with or without accessory bolt holes cast into them.

Other performance improvements include bronze alloy valve guides, ductile iron valve seats, and multi-angle valve seat machining. Plus, the decks and walls are cast extra thick to increase casting strength and provide plenty of material for future porting.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.2:1 compression 350 c.i.d. with Trick Flow DHC™ 175 cylinder heads (TFS-30210003), Trick Flow Track Max™ hydraulic roller camshaft (TFS-31402001), 1.6 ratio roller rocker arms, Trick Flow chromoly pushrods, Edelbrock Victor Jr. intake manifold, Trick Flow Track Heat<sup>®</sup> 750 cfm carburetor (TFS-20750R), Hooker Super Competition headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers.

#### DHC 175 Heads, Fast As Cast Runners, Assembled

TFS-30210002 1.470" single valve springs, no accessory bolt holes,

175cc intake runners

TFS-30210003 1.460" dual valve springs, no accessory bolt holes,

175cc intake runners

TFS-30210006 1.470" single valve springs, with accessory bolt holes,

175cc intake runners

TFS-30210007 1.460" dual valve springs, with accessory bolt holes,

175cc intake runners

Airflow Results DHC 175				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	65	53		
.200"	133	104		
.300"	192	136		
.400"	233	180		
.500"	258	198		
.600"	254	207		
Tests conducted at 28" of water (pressure)				

Bore size: 4.030"; exhaust with 13/4" pipe.



A356-T61 aluminum Combustion Chamber Volume: 60cc CNC-profiled Intake Port Volume: 175cc Fast As Cast Intake Port Location: Stock

1.230" x 1.990" Intake Port Dimensions: Intake Gaskets: Fel-Pro 1256 Intake Valve Diameter: 2.02" (TFS-51400211)

Intake Valve Seat: Ductile iron (TFS-51400271) Exhaust Port Volume: 74cc Fast As Cast

Exhaust Port Location: Stock

1.240" x 1.240" square Fel-Pro 1404 **Exhaust Port Dimensions:** Exhaust Gaskets: Exhaust Valve Diameter: 1.600" (TFS-51400212) Exhaust Valve Seat: Ductile iron (TFS-51400272)

Valve Angles: Valve Guide Material:

Bronze alloy (intake TFS-51400252, exhaust TFS-30400252) Viton® fluoroelastomer (TFS-51400454)

Valve Seals:

Valve Seat Angles:

45° x multi-angle 1.615"; 1.500" for two center valve springs 1.480" (TFS-51400434) 1.550" x .060" (TFS-21400440) Valve Spring Pocket Diameter: Valve Spring Cups: Valve Spring I.D. Locators:

7° x 1.460" o.d. chromoly steel (TFS-31400424) 7° machined steel (TFS-31400444) Valve Spring Retainers:

Valve Stem Locks: Valve Springs, Standard: 1.470" o.d. single spring with damper

(TFS-16514-16) 118 lbs. @ 1.800" installed height 300 lbs. @ 1.280" open 360 lbs. per inch rate .540" max. valve lift

TFS-30210007

Valve Springs, Option 1: 1.460" o.d. dual spring with damper

(TFS-16315-16) 134 lbs. @ 1.800" installed height 405 lbs. @ 1.200" open

452 lbs. per inch rate .600" max. valve lift

5/16" (TFS-30400623-8) 7/16" (TFS-51400614) Guideplates: Rocker Arm Studs: Rocker Arms:

TFS-31400520 (1.5 ratio, 7/16" studs) TFS-31400521 (1.6 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" Cylinder Head Bolts: TFS-92000 TFS-30494060-040 Head Gaskets: Pushrod Lenath: Longer than stock required

Autolite 3924 or Autolite 4252 (13/16" hex) Spark Plugs:

NOTE: These heads have straight spark plug holes. Viton® is a registered trademark of DuPont Performance Elastomers.

# Trick Flow Fast Fact: Holes or No Holes— Which Style is Right for You?

Trick Flow DHC 175 head castings come with

or without accessory bolt holes. But which style is right for you?

It's pretty simple: The heads without holes in the end are for engines with block or water pump-mount accessory brackets. The heads with holes in them are for engines with brackets that mount the accessories to the cylinder head. Now you know!





Made to outperform factory small block Chevy heads on 283-350 c.i.d. street performance engines, Trick Flow Super 23 175 cylinder heads feature small cross-section intake runners to promote low-RPM torque and high-RPM horsepower on small bore engines. Fast As Cast® runners duplicate the runner profile and performance levels of CNC-ported heads—for about the same price as ordinary cast heads! Other features include angled spark plugs, raised valve cover rails, and extra-thick decks and walls for porting.

Super 23 175 heads are emissions-legal under CARB E.O. #D-747-1 for 1995 and earlier GM vehicles with Chevy 262-350 engines and accept most factory accessories.

CARB Exempt

Cylinder heads are available fully assembled or as bare castings. Sold individually.

#### **Airflow Results Super 23 175 Exhaust Flow CFM** Lift Value Intake Flow CFM .100 62 200 109 127 .300 180 142 .400" 219 167 .500 242 181 .600" 245 192

Tests conducted at 28" of water (pressure). Bore size: 4.030"; exhaust with 13/4" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

## Super 23 175 Heads, Fast As Cast Runners, Assembled

TFS-30310001	1.250" single valve springs, perimeter bolt valve covers,
	175cc intake runners
TFS-30310002	1.470" single valve springs, perimeter bolt valve covers,
	175cc intake runners
TFS-30310003	1.460" dual valve springs, perimeter bolt valve covers,
	175cc intake runners
TFS-30310005	1.250" single valve springs, center bolt valve covers,
	175cc intake runners
TFS-30310006	1.470" single valve springs, center bolt valve covers,
	175cc intake runners
TFS-30310007	1.460" dual valve springs, center bolt valve covers,
	175cc intake runners

# Trick Flow Fast Fact: Efficiency

Pushrod length greatly affects the efficiency of the motion transfer to the valves by altering the tip travel of the rocker arms. For maximum valvetrain efficiency, rocker arm tip travel on the valve stem should be

As a rule, longer pushrods will decrease rocker arm tip travel. If you can't get a tip travel measurement of .080" or less after trying several pushrod lengths, you will have to switch to another brand of rocker arms and start over.

When checking pushrod length with roller tip rocker arms, note the position of the roller tip on the valve stem when the valve is at one-half of its net lift. Ideally, the centerline of the rocker arm's tip should coincide with the centerline of the valve at one-half of its net lift so the rocker arm tip travels an equal distance on each half of the

If you have questions about checking pushrod length or pushrod/ rocker arm recommendations for your combination, contact the Trick Flow Technical Department at 1-330-630-1555, Monday through Friday from 9:00 am to 5:00 pm EST.



A356-T61 aluminum Material: Combustion Chamber Volume: 56cc standard Intake Port Volume: 175cc Fast As Cast

Intake Port Location: Stock 1.230" x 1.990" Intake Port Dimensions:

Intake Gaskets: Fel-Pro 1256 Intake Valve Diameter: 1.940" (TFS-30300211) Intake Valve Seat: Ductile iron (TFS-30300271)

Exhaust Port Volume: 67cc Fast As Cast

**Exhaust Port Location:** Stock

Exhaust Port Dimensions: 1.300" x 1.350" D-shape

Exhaust Gaskets: Fel-Pro 1404

Exhaust Valve Diameter: 1.500" (TFS-30300212) Exhaust Valve Seat: Ductile iron (TFS-30300272)

Valve Angles:

Bronze alloy (intake TFS-51400252-1, exhaust TFS-30400252-1) Viton® fluoroelastomer (TFS-51400454) Valve Guide Material:

Valve Seals:

45° x multi-angle Valve Seat Angles:

Valve Spring Pocket Diameter: Valve Spring Cups:

Valve Spring Retainers:

45° X munr-angle 1.615"; 1.500" for two center valve springs 1.270" (TFS-31400433) 1.480" (TFS-51400434) 7° x 1.250" o.d. chromoly steel (TFS-31400423) 7° x 1.460" o.d. chromoly steel (TFS-31400423)

7° x 1.470" o.d. chromoly steel (TFS-51400423) 7° machined steel (TFS-51400444) Valve Stem Locks: Valve Springs, Standard:

7 Inacillied side (115-140-444) 1.250" o.d. single spring with damper (TFS-16314-16) 110 lbs. @ 1.780" installed height 300 lbs. @ 1.280" open

360 lbs. per inch rate .520" maximum valve lift

1.470" o.d. single spring with damper Valve Springs, Option 1:

(TFS-16514-16 ) 118 lbs. @ 1.800" installed height 300 lbs. @ 1.280" open 360 lbs. per inch rate .540" maximum valve lift

1.460" o.d. dual spring with damper

(TFS-16315-16) 134 lbs. @ 1.800" installed height

405 lbs. @ 1.200" open 452 lbs. per inch rate .600" maximum valve lift

5/16" (TFS-30400623-8)

Guideplates: 3/8" (TFS-51400613) Rocker Arm Studs: Rocker Arms:

Valve Springs, Option 2:

TFS-31400510 (1.5 ratio, 3/8" studs) TFS-31400511 (1.6 ratio, 3/8" studs) Minimum Bore Diameter: 3.750"

Cylinder Head Bolts: TFS-92000 Head Gaskets: TFS-30494060-040 Pushrod Length: Longer than stock required Spark Plugs: NGK FR5 or Autolite 3924 NOTE: Must use 350 or larger head gasket on 305 engines. Viton® is a registered trademark of DuPont Performance Elastomers.

Phone: 1-330-630-1555 • Fax: 1-330-633-2504 • TrickFlow.com

# Super 23<sup>®</sup> 195 Cylinder Heads for Small Block Chevrolet

Trick Flow Super 23 195 cylinder heads for small block Chevy are a direct fit, high performance replacement for factory heads and accept most original accessories. Ideal for 302-406 c.i.d. engines, these heads feature high-velocity, small cross-section

intake runners to promote low-RPM torque and high-RPM horsepower. Fast As Cast® runners deliver near-CNC-ported flow and performance for about the same price as regular cast heads. Angled spark plugs, raised valve cover rails, and extra-thick decks and walls for porting round-out the features.

Super 23 195 heads are emissions-legal under CARB E.O. #D-747-1 for 1995 and earlier GM vehicles with Chevy 262-350 engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.





**Dyno Results Super 23 195** 600 Brake Horsepower/Torque 504 HP 500 451 Lbs.-Ft 400 300 Horsepower **Torque** 200 3.0 4.0 5.0 **RPM x 1,000** 

**Test Engine:** 10:1 compression 383 c.i.d. with Trick Flow Super 23® 195 cylinder heads (TFS-30410013-M72), Trick Flow Track Max® hydraulic roller camshaft (TFS-31402002), Trick Flow 1.5 ratio roller rocker arms (TFS-31400510), Edelbrock Victor Jr. intake manifold, Hooker headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers

#### Super 23 195 Heads, Fast As Cast Runners, Assembled

#### **62cc Standard Combustion Chambers**

TFS-30410001 1.250" single springs, perimeter bolt valve covers, 195cc intake runners TFS-30410002 1.470" single springs, perimeter bolt valve covers, 195cc intake runners TFS-30410003 1.460" dual springs, perimeter bolt valve covers, 195cc intake runners TFS-30410005 1.250" single springs, center bolt valve covers, 195cc intake runners TFS-30410006 1.470" single springs, center bolt valve covers, 195cc intake runners TFS-30410007 1.460" dual springs, center bolt valve covers, 195cc intake runners

# **64cc CNC-Profiled Combustion Chambers**

TFS-30410001-M64 1.250" single springs, perimeter bolt valve covers, 195cc intake runners TFS-30410002-M64 1.470" single springs, perimeter bolt valve covers, 195cc intake runners TFS-30410003-M64 1.460" dual springs, perimeter bolt valve covers, 195cc intake runners TFS-30410005-M64 1.250" single springs, center bolt valve covers, 195cc intake runners TFS-30410006-M64 1.470" single springs, center bolt valve covers, 195cc intake runners TFS-30410007-M64 1.460" dual springs, center bolt valve covers, 195cc intake runners

# 72cc CNC-Profiled Combustion Chambers

TFS-30410012-M72 1.470" single springs, perimeter bolt valve covers, 195cc intake runners 1.460" dual springs, perimeter bolt valve covers, 195cc intake runners TFS-30410013-M72 TFS-30410014-M72 1.470" single springs, center bolt valve covers, 195cc intake runners 1.460" dual springs, center bolt valve covers, 195cc intake runners TFS-30410015-M72

#### **Airflow Results** Super 23 195 with 72cc CNC-Profiled Chambers

Capo: 20 100 mm 1200 cm 1 10m 01					
Lift Value	Intake Flow CFM Exhaust Flow CFN				
.100"	71	53			
.200"	142	99			
.300"	196	135			
.400"	234	167			
.500"	249	186			
600"	249	199			

Tests conducted at 28" of water (pressure). Bore size 4.030". CNC-profiled combustion chambers; exhaust with  $1^34$ " pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

# **Specifications**

A356-T61 aluminum Combustion Chamber Volume: 01/02/03/05/06/07: 62cc standard M64: 64cc CNC-profiled

M72: 72cc CNC-profiled Intake Port Volume: 195cc Fast As Cast Intake Port Location: Stock Intake Port Dimensions: 1.280" x 2.090"

Intake Gaskets: Fel-Pro 1205 or 1266 Intake Valve Diameter: 2.020" (TFS-51400211) Intake Valve Seat: Ductile iron (TFS-51400271)

Exhaust Port Volume: 72cc Fast As Cast

Exhaust Port Location: Stock

1.350" x 1.500" D-shape Exhaust Port Dimensions: Exhaust Gaskets:

Fel-Pro 1404 Exhaust Valve Diameter: 1.600" (TFS-51400212)

Exhaust Valve Seat: Ductile iron (TFS-51400272-1)

Valve Angles:

Bronze alloy (intake TFS-51400252-1, exhaust TFS-30400252-1) Valve Guide Material:

Viton® fluoroelastomer (TFS-51400454) Valve Seals:

Valve Seat Angles: Valve Spring Pocket Diameter:

45° x multi-angle 1.615"; 1.500" for two center valve springs

1.270" (TFS-31400433) 1.480" (TFS-51400434) Valve Spring Cups:

Valve Spring Retainers:

7° x 1.250" o.d. chromoly steel (TFS-31400423) 7° x 1.460" o.d. chromoly steel (TFS-31400424) 7° x 1.470" o.d. chromoly steel (TFS-51400423) 7° machined steel (TFS-51400444)

Valve Stem Locks: Valve Springs, Standard: 1.250" o.d. single spring with damper

(TFS-16314-16) 110 lbs. @ 1.780" installed height

300 lbs. @ 1.280" open 360 lbs. per inch rate .520" maximum valve lift

Valve Springs, Option 1: 1.470" o.d. single spring with damper

(TFS-16514-16)

118 lbs. @ 1.800" installed height 300 lbs. @ 1.280" open

360 lbs. per inch rate .540" maximum valve lift

1.460" o.d. dual spring with damper Valve Springs, Option 2:

(TFS-16315-16) 134 lbs. @ 1.800" installed height 405 lbs. @ 1.200" open

452 lbs. per inch rate .600" maximum valve lift 5/16" (TFS-30400623-8)

Guidenlates: Rocker Arm Studs:

3/8" (TFS-51400613) TFS-31400510 (1.5 ratio, 3/8" studs) TFS-31400511 (1.6 ratio, 3/8" studs) Rocker Arms:

Minimum Bore Diameter: 4 000" Cylinder Head Bolts: TFS-92000 TFS-30494060-040 Head Gaskets: Pushrod Length: Longer than stock required Spark Plugs: NGK FR5 or Autolite 3924

NOTE: Must use Fel-Pro 1014 head gaskets with predrilled steam holes for

400 c.i.d; must modify heads per instructions. Viton® is a registered trademark of DuPont Performance Elastomers.





Trick Flow Super 23 215 cylinder heads give a huge performance boost to race-ready small block Chevy engines. Based on the proven Super 23 head design (angled spark plugs, extra-thick decks and walls for porting, and raised valve cover rails), the Super 23 215 heads feature enlarged valve springs to help pull in more air and fuel with higher lift cams. The larger Fast As Cast® runner design provides near-CNC-ported airflow and power for about the same price as most cast heads. The result is more airflow in the mid and upper RPM range—and that means more power.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

Material: A356-T61 aluminum Combustion Chamber Volume: 06/07: 67cc standard 12/13: 72cc standard Intake Port Volume: 215cc Fast As Cast

Intake Port Location: Stock

Intake Port Dimensions: 1.310" x 2.210" Intake Gaskets: Fel-Pro 1206 or 1266 Intake Valve Diameter: 2.080" (TFS-32400211) Intake Valve Seat: Ductile iron (TFS-51600271-1)

Exhaust Port Volume: 78cc Fast As Cast

Exhaust Port Location: Stock

**Exhaust Port Dimensions:** 1.450" x 1.450" D-shape Exhaust Gaskets: Fel-Pro 1406

1.600" (TFS-32400212) Exhaust Valve Diameter: Exhaust Valve Seat: Ductile iron (TFS-30600274)

Valve Angles: Bronze alloy (intake TFS-51700252, exhaust TFS-41400251) Valve Guide Material:

Valve Seals: Viton® fluoroelastomer (TFS-30400454)

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.615'
Valve Spring I.D. Locators: 1.550'

1.550" x .060" (TFS-21400440)

10° x 1.550" o.d. chromoly steel (TFS-21400425) 10° x 1.550" o.d. titanium (TFS-214T0520) Valve Spring Retainers:

Valve Stem Locks: 10° machined steel with lash cap recess

(TFS-52400444)

1.550" o.d. dual spring with damper (TFS-16094-16) 138 lbs. @ 1.950" installed height Valve Springs, Standard:

430 lbs. @ 1.250" open 420 lbs. per inch rate .680" maximum valve lift

Valve Springs, Optional: 1.550" o.d. dual spring with damper

(TFS-16324-16)

215 lbs. @ 1.950" installed height

550 lbs. @ 1.270" open 460 lbs. per inch rate .680" maximum valve lift

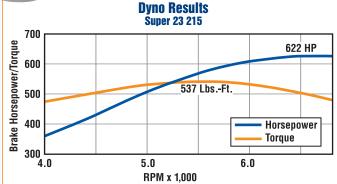
5/16" (TFS-30400623-8) 7/16" (TFS-51400614) Guideplates: Rocker Arm Studs:

TFS-31400520 (1.5 ratio, 7/16" studs) Rocker Arms: TFS-31400521 (1.6 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" TFS-92000 Cylinder Head Bolts: Head Gaskets: TFS-30494200-040 Pushrod Length: Longer than stock required Spark Plugs: Autolite 3922

NOTE: Must use head gaskets with 4.155" or larger bore diameter.

Viton® is a registered trademark of DuPont Performance Elastomers.



Test Engine: 12:1 compression 406 c.i.d. with Trick Flow Super 23® 215 cylinder heads (TFS-32410007), mechanical roller camshaft (264°/268° duration @ .050"; .630".630" lift; 112° lobe separation), Trick Flow 1.5/1.6 ratio roller rocker arms (TFS-31400522), Edelbrock Super Victor intake manifold, Hooker Super Competition headers with 17/8 primaries, open exhaust.

#### Super 23 215 Heads, Fast As Cast Runners, Assembled

oupo: 20 210	riodad, radi rio dadi riamidio, rioddinaida
TFS-32410006	67cc combustion chambers and 1.550" dual valve springs
	(420 lbs./in.), 215cc intake runners
TFS-3241T006	67cc combustion chambers, 1.550" dual valve springs
	(420 lbs./in.), and titanium retainers, 215cc intake runners
TFS-32410007	67cc combustion chambers and 1.550" dual valve springs
	(460 lbs./in.), 215cc intake runners
TFS-3241T007	67cc combustion chambers, 1.550" dual valve springs
	(460 lbs./in.), and titanium retainers, 215cc intake runners
TFS-32410012	72cc combustion chambers and 1.550" dual valve springs
	(420 lbs./in.), 215cc intake runners
TFS-3241T012	72cc combustion chambers, 1.550" dual valve springs
	(420 lbs./in.), and titanium retainers, 215cc intake runners
TFS-32410013	72cc combustion chambers and 1.550" dual valve springs
	(460 lbs./in.), 215cc intake runners
TFS-3241T013	72cc combustion chambers, 1.550" dual valve springs
	(460 lbs./in.), and titanium retainers, 215cc intake runners

Airflow Results Super 23 215 with 72cc Chambers				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	66	58		
.200"	141	108		
.300"	199	147		
.400"	244	180		
.500"	273	202		
.600"	282	214		
.700"	287	223		

Tests conducted at 28" of water (pressure).

Bore size: 4.155"; exhaust with 1½" pipe.

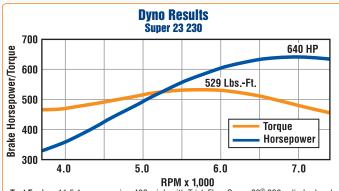
To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

# Super 23<sup>®</sup> 230 Cylinder Heads for Small Block Chevrolet

Trick Flow's Super 23 230 cylinder heads represent the best value in small block Chevy racing technology. That's because they are the closest thing you can get to 18° cylinder head performance in a 23° design. The Super 23 230 heads work best on 400 cubic inch and larger engines. The heads come standard with Trick Flow's advanced CNC Competition Ported runner design that features fully CNC-profiled combustion chambers and runners with a premium high resolution surface finish for maximum flow and performance. Additional highlights include angled spark plugs, extra-thick decks and walls for porting, and raised valve cover rails.

To make swapping cylinder heads less costly and time-consuming, Trick Flow designed the Super 23 230 heads to use all standard small block valvetrain parts and

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 11.5:1 compression 406 c.i.d. with Trick Flow Super 23® 230 cylinder heads (TFS-3241T001-C03), mechanical roller camshaft (266°/270° duration @ .050"; .630"/.630" lift; 112° lobe separation), Trick Flow 1.5/1.6 ratio roller rocker arms (TFS-31400522), Edelbrock Super Victor intake manifold, Hooker Super Competition headers with 11/18 primaries, open exhaust.

#### Super 23 230 Heads, CNC Competition Ported Runners, Assembled

TFS-32410002-C03 TFS-3241T002-C03 1.550" dual valve springs (420 lbs./in.), 230cc intake runners 1.550" dual valve springs (420 lbs./in.) and titanium retainers, 230cc intake runners

TFS-32410001-C03 TFS-3241T001-C03

- 1.550" dual valve springs (460 lbs./in.), 230cc intake runners
- 1.550" dual valve springs (460 lbs./in.) and titanium retainers, 230cc intake runners

#### **Airflow Results** Super 23 230 with CNC Competition Ported Runners

ouper 20 20	o with one competition i o	ittu ilullitti 3
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	69	55
.200"	144	112
.300"	213	158
.400"	265	195
.500"	296	220
.600"	305	234
.700"	310	240

Tests conducted at 28" of water (pressure). Bore size: 4.155"; exhaust with 17/8" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search."

# **Specifications**

TFS-3241T001-C03

A356-T61 aluminum Combustion Chamber Volume: 70cc CNC-profiled

Intake Port Volume: 230cc CNC Competition Ported Intake Port Location: Stock Intake Port Dimensions: 1.300" x 2.230"

Intake Gaskets: Fel-Pro 1207 or 1267 Intake Valve Diameter: 2.080" (TFS-32400211) Intake Valve Seat: Ductile iron (TFS-51600271-1) Exhaust Port Volume: 78cc CNC Competition Ported Exhaust Port Location: Stock

1.490" x 1.490" D-shape Exhaust Port Dimensions:

Exhaust Gaskets: Fel-Pro 1406 Exhaust Valve Diameter: 1.600" (TFS-32400212)

Exhaust Valve Seat: Ductile iron (TFS-30600274) Valve Angles: Valve Guide Material:

Bronze alloy (intake TFS-51700252, exhaust TFS-41400251) Viton® fluoroelastomer (TFS-30400454) Valve Seals:

Valve Seat Angles: Valve Spring Pocket Diameter: 45° x multi-angle

1 615 Valve Spring I.D. Locators:

1.550" x .060" (TFS-21400440) 10° x 1.550" o.d. chromoly steel (TFS-21400425) 10° x 1.550" o.d. titanium (TFS-214T0520) Valve Spring Retainers:

Valve Stem Locks: 10° machined steel with lash cap recess

(TFS-52400444)

1.550" o.d. dual spring with damper Valve Springs, Standard:

(TFS-16094-16) 138 lbs. @ 1.950" installed height

430 lbs. @ 1.250" open 420 lbs. per inch rate .680" maximum valve lift

Valve Springs, Optional: 1.550" o.d. dual spring with damper

(TFS-16324-16)

215 lbs. @ 1.950" installed height 550 lbs. @ 1.270" open

460 lbs. per inch rate .680" maximum valve lift 5/16" (TFS-30400623-8)

Rocker Arm Studs: 7/16" (TFS-51400614) Rocker Arms: TFS-31400520 (1.5 ratio, 7/16" studs) TFS-31400521 (1.6 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" Cylinder Head Bolts: TFS-92000

Head Gaskets: TFS-30494200-040 Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3922

Guideplates:

NOTE: Must use head gaskets with 4.155" or larger bore diameter.

Viton® is a registered trademark of DuPont Performance Elastomers.

Compliment your new Super 23® heads with a Track Max® camshaft for unbeatable, race-winning performance! You can find them on page 25.





Get the most out of your small block Chevy with Trick Flow's top-end engine kits. Trick Flow engineers carefully tune each kit to deliver optimum horsepower and torque—taking the time and guesswork out of designing a winning combination and saving you some hard-earned cash in the process.

The Super 23 top-end kits for small block Chevy are built around a set of dyno-proven, Super 23 195 cylinder heads with your choice of

#### Super 23 Top-End Engine Kits, Flat Tappet Cam

TFS-K314-350-400\* 350 HP/400 lbs.-ft., each 420 HP/395 lbs.-ft., each TFS-K314-490-440 490 HP/440 lbs.-ft., each

# Super 23 Top-End Engine Kits, Hydraulic Roller Cam

TFS-K314-445-405\* 445 HP/405 lbs.-ft., each

TFS-K314-465-450 465 HP/450 lbs.-ft., fits factory non-hydraulic roller cam engine blocks, each

TFS-K314-500-450 500 HP/450 lbs.-ft., fits factory hydraulic roller cam engine

blocks, each

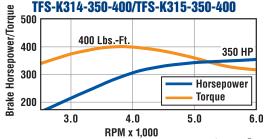
TFS-K315-465-450 465 HP/450 lbs.-ft., each

62cc Fast As Cast® or 72cc CNC-profiled combustion chambers. You also get a Track Max® hydraulic flat tappet or hydraulic roller camshaft, matching lifters (flat tappet cams only), pushrods (flat tappet cams only), roller rocker arms, double roller timing chain, thrust button (roller cams only), cam locking plate, head bolts, pushrod length checker (roller cams only), and a gasket set.

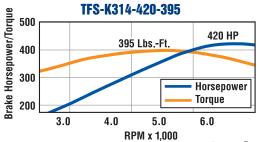


# Super 23 Top-End Engine Kit Dyno Results

**USA** 



Test Engine: 350 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 64cc CNC-profiled combustion chambers (TFS-30410001), Trick Flow Track Max® hydraulic camshaft (TFS-31401000), Trick Flow StreetBurner® intake manifold (TFS-30400222), 9.5:1 to 10.0:1 compression, and a Trick Flow by Quick Fuel Technology Street Heat™ 650 cfm carburetor.



Test Engine: 350 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 64cc CNC-profiled combustion chambers (TFS-30410002), Trick Flow Track Max® hydraulic camshaft (TFS-31401001), 9.5:1 to 10.0:1 compression, an Edelbrock Victor Jr. intake manifold, and a Trick Flow by Quick Fuel Technology Track Heat® 750 cfm carburetor.

TFS-K314-490-440

500
440 Lbs.-Ft.

Horsepower
Torque
3.0
4.0
5.0
6.0
7.0

RPM x 1,000

Test Engine: 383 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 72cc CNC-profiled combustion chambers (TFS-30410013-M72), Trick Flow Track Max® hydraulic camshaft (TFS-31401002), 10.0:1 compression, an Edelbrock Victor Jr. intake manifold, and a Trick Flow by Quick Fuel Technology Track Heat® 750 cfm carburetor.

TFS-K314-445-405

400

405 Lbs.-Ft.

Horsepower
Torque

3.0

3.0

4.0

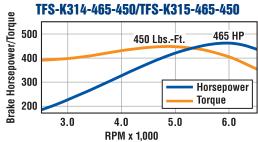
5.0

6.0

RPM x 1,000

Test Engine: 350 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 64cc CNC-profiled combustion chambers (TFS-30410003), Trick Flow Track Max® hydraulic roller camshaft (TFS-31402002). Trick Flow StreetBurner® intake manifold

(TFS-30400222), 10.0:1 compression, and a Trick Flow by Quick Fuel Technology Track Heat® 750 cfm carburetor.



Test Engine: 1987-95 factory roller cam 383 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 72cc CNC-profiled combustion chambers (TFS-30410013-M72), Trick Flow Track Max® hydraulic roller camshaft (TFS-31402001/TFS-31403001), 10.0:1 compression, an Edelbrock Victor Jr. intake manifold, and a Trick Flow by Quick Fuel Technology Track Heat® 750 cfm carburetor.



Test Engine: 383 c.i.d. short block with flat top pistons, Trick Flow Super 23® 195 cylinder heads with 72cc CNC-profiled combustion chambers (TFS-30410013-M72), Trick Flow Track Max® hydraulic roller camshaft (TFS-31402002), 10.0:1 compression, an Edelbrock Victor Jr. intake manifold, and a Trick Flow by Quick Fuel Technology Track Heat® 750 cfm carburetor.

<sup>\*</sup>Top end kit part numbers TFS-K315-350-400 and TFS-K315-445-405 include everything listed above in the TFS-K314-350-400 and TFS-K314-445-405 kits, plus Trick Flow's dual plane StreetBurner® intake manifold (TFS-30400222).

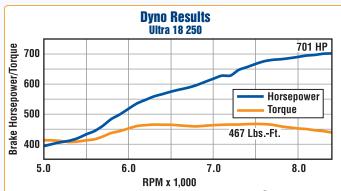
# **Ultra 18® 250 Cylinder Head** for Small Block Chevrolet

Trick Flow Ultra 18 250 cylinder heads with 18 degree runners make serious horsepower—power ideal for drag and high-RPM circle track racing. Right out of the box, these heads deliver higher airflow numbers than fully prepped 23 degree

Features include Trick Flow's CNC-profiled combustion chambers and CNC Competition Ported runners with a premium high resolution surface finish for maximum flow and performance.

Ultra 18 250 heads accept most current 18 degree intake manifolds, headers, and other components. They require the use of offset shaft-mounted rocker arms and a mechanical roller camshaft with offset intake lifters.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 13.35:1 compression 355 c.i.d. with Trick Flow Ultra 18® 250 cylinder heads (TFS-3181T001-C01), COMP cams solid roller camshaft (284°/292° duration @ .050°; .726°/.704" lift; 114° lobe separation), Jesel 1.60 ratio shaft mount roller rocker arms, ported Bowtie intake manifold, Quick Fuel 4150 series carburetor, Dynotech headers with 17%" to 2" stepped primaries.

#### Ultra 18 250 Head, CNC Competition Ported Runners, Assembled

TFS-3181T001-C01 250cc intake runners

	Airflow Results Ultra 18 250	
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	73	56
.200"	144	103
.300"	221	150
.400"	280	204
.500"	315	236
.600"	338	258
.700"	343	269

Tests conducted at 28" of water (pressure).
Bore size: 4.155"; exhaust with 2" pipe.
To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search."

## **Fabricated Aluminum Valve Covers** for Small Block Chevrolet



These good-looking, tall height (3%" overall) fabricated valve covers have an embossed Trick Flow logo and clear roller rockers and stud girdles. They're made from .084" thick aluminum to reduce engine weight and include the necessary fasteners to ensure a correct installation.

Valve covers, natural, pair TFS-31500804

# **Chrome Valve Covers** for Small Block Chevrolet

Trick Flow chrome plated valve covers provide a great alternative to higher-priced aluminum covers. They're baffled to prevent oil breather blow-by and feature embossed Trick Flow logos and triple chrome plating for a long-lasting shine. New gaskets are included.

TFS-44000 Valve covers, chrome, pair

# **Specifications**

Material: A-356-T61 aluminum

Combustion Chamber Volume: 56cc CNC-profiled
Intake Port Volume: 250cc CNC Competition Ported
Intake Port Location: GM 18°

Intake Port Dimensions: 1.350" x 2.200' Intake Gaskets: TFS-31800921

2.150" (TFS-31800211) Ductile iron (TFS-31800271) Intake Valve Diameter: Intake Valve Seat: Exhaust Port Volume: 100cc CNC Competition Ported

Exhaust Port Location: GM 18° 1.760" x 1.460" oval **Exhaust Port Dimensions:** TFS-31800931 Exhaust Gaskets: Exhaust Valve Diameter: 1.600" (TFS-31800212)

Copper bronze alloy (TFS-31800272) Exhaust Valve Seat:

Valve Angles: Valve Guide Material: Manganese bronze alloy (TFS-51600251) Valve Seals: Viton® fluoroelastomer (TFS-30400454)

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.660" Valve Spring I.D. Locators: TFS-21400440

10° x 1.550" o.d. titanium (TFS-214T0520) Valve Spring Retainers: Valve Stem Locks: 10° machined steel with lash cap recess

(TFS-52400444) 1.560" o.d. dual spring with damper Valve Springs:

(TFS-16318-16)

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open 500 lbs. per inch rate 700" max. valve lift

Shaft-style with .550" offset intake and Rocker Arms:

.220" offset exhaust

Minimum Bore Diameter: 4.155" ARP 234-3721 TFS-30494200-040 Cylinder Head Bolts: Head Gaskets

Varies per application Pushrod Length: Spark Plugs: Autolite 3932

Requires roller lifters with .180" offset intake and NOTES: no exhaust offset.

Requires intake manifold and headers designed

for 18° heads

Viton® is a registered trademark of DuPont Performance Elastomers.



Trick Flow also has cast aluminum valve covers. You can find them on page 26.



# **Roller Rocker Arms** for Small Block Chevrolet

These aluminum roller rockers are excellent for use with Trick Flow heads. They can also be used on stock and other aftermarket Chevy heads. They feature heat-TFS-31400510 treated CNC-machined bodies, premium needle-bearing fulcrums, roller tips, and a machined relief for improved valve spring clearance. Trick Flow roller rockers are sold in sets of 16 and come complete with polylocks.

TFS-31400510 TFS-31400511	Rocker arms, 1.5 ratio, 3/8" studs, set of 16 Rocker arms, 1.6 ratio, 3/8" studs, set of 16
TFS-31400512	Rocker arms, 1.5 ratio, 3/8" studs, narrow body, set of 16
TFS-31400513 TFS-31400514	Rocker arms, 1.6 ratio, 3/8" studs, narrow body, set of 16 Rocker arms, 1.5/1.6 ratio, 3/8" studs, narrow body, set of 16
TFS-31400514	Rocker arms, 1.5/1.6 ratio, 3/8" studs, flatfow body, set of 16
TFS-31400520	Rocker arms, 1.5 ratio, 7/16" studs, set of 16
TFS-31400521	Rocker arms, 1.6 ratio, 7/16" studs, set of 16
TFS-31400522	Rocker arms, 1.5/1.6 ratio, 7/16" studs, set of 16



Trick Flow 1/4" thick steel valve cover adapters allow early-style valve covers to be used with late model Chevy centerbolt heads. Plus, the adapters provide the option of running stud girdles to increase valvetrain stability and improve overall performance. The adapters come with all necessary hardware and .200" thick, rubber steel core gaskets.

NOTE: Requires narrow-body rocker arms (adds .650" to overall height). TFS-31500811 Valve cover adapters, pair

# **Track Max® Camshafts** for Small Block Chevrolet

Get significant horsepower and torque increases with Trick Flow Track Max camshafts. The camshafts are dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The cams are cut from a premium blank core and checked for proper hardness before being precision ground to exact tolerances.



# **Rocker Stud Girdles** for Small Block Chevrolet USA



These CNC-machined stud girdles help control valve lift and timing changes due to stud flex, allowing more consistent high-RPM performance. Each stud girdle is anodized blue and comes with high-quality mounting hardware and hardened adjusting nuts. Tall-style valve covers are required.

TFS-30400700 Rocker stud girdles, 3/8", pair TFS-30400701 Rocker stud girdles, 7/16", pair

# **True Roller Timing Chain Set** for Small Block Chevrolet

Billet steel gears and a double roller timing chain combine to make this Trick Flow timing chain set the strongest, most accurate available today. Furthermore, the crank sprocket features multiple keyways to allow the cam to be installed straight-up, retarded, or advanced.

**NOTE:** Does not fit factory roller camshaft engines.

TFS-31478500 Timing chain set, each

# **Cylinder Head Bolt Kit**



Keep combustion where it belongs! Trick Flow's high-quality cylinder head bolt kits provide consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. A black oxide finish protects them from wear and corrosion. The kit contains all the bolts you need to install a pair of heads, including hardened washers.

TFS-92000 Cylinder head bolt kit, hex head, each

Hydraulic Flat Tappet Camshaft and Camshaft/Lifter Kit Specifications				
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.5 Rocker Arms	Lobe Sep.
TFS-31401000 (camshaft only) TFS-K31401000 (kit)	Good idle, strong low-end torque, 2,200-5,700 RPM powerband. Small tube headers and low-restriction exhaust recommended. Compression: 9:1 minimum.	212°/214°	.443"/.449"	110°
TFS-31401001 (camshaft only) TFS-K31401001 (kit)	Fair idle, strong midrange power, 2,600-6,100 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.	226°/234°	.480"/.495"	110°
TFS-31401002 (camshaft only) TFS-K31401002 (kit)	Rough idle, excellent top-end power, 3,500-6,700 RPM powerband. 3,000-3,500 RPM stall converter. Compression: 10:1 minimum.	246°/254°	.510"/.518"	112°

	Hydraulic Roller Camshaft Specifications			
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.5 Rocker Arms	Lobe Sep.
TFS-31402001	Fair idle, broad midrange power, 2,800-6,300 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.	230°/234°	.528"/.539"	110°
TFS-31403001	Fair idle, broad midrange power, 2,800-6,300 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum. For use in 1987-95 OEM hydraulic roller cam engines only.	230°/234°	.530"/.540"	110°
TFS-31402002	Rough idle, excellent top-end power, 3,500-7,000 RPM powerband. 3,000-3,500 RPM stall converter. Compression: 10:1 minimum.	246°/254°	.555"/.555"	112°



# StreetBurner® Intake Manifold for Small Block Chevrolet

Trick Flow's StreetBurner intake manifold for small block Chevrolet engines is designed for applications that operate in the 1,500-6,500 RPM range. The dual plane, open air design with high-flow individual runners provides significant torque increases in the low- to mid-RPM range. The air space below the plenum separates the runners from the heat of the lifter valley cover to keep the air/fuel mixture cooler for more power. Other features include A319 aluminum construction, integral bosses for nitrous nozzles, and extra material for custom port work. This intake manifold works with all 4150-style carburetors; overall height to the carburetor mounting pad is 5.400".

TFS-30400222 Manifold, each



# **Cast Aluminum Valve Covers** for Small Block Chevrolet

Made from durable A319 cast aluminum, Trick Flow pent roof-style valve covers are much less prone to flex and distortion than stamped steel covers, which helps prevent oil leaks. These small block Chevy covers are 43/6° tall to clear girdles and roller rockers, and can be drilled for breathers.

TFS-31500802 Valve covers, silver, pair Valve covers, black, pair

TFS-25200801 Hardware kit, includes twelve 1/4"-20 x 1.500" studs

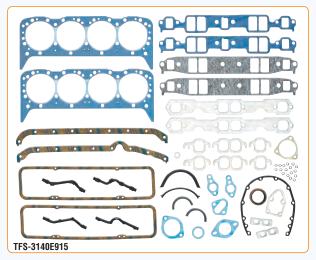
and 12 flanged nuts, each

# Individual Gaskets for Small Block Chevrolet



Trick Flow gaskets are made from high-quality materials with superior fit and finish, designed to deliver trouble-free performance over the long haul. The individual replacement gaskets save you money by letting you purchase just the gaskets you need instead of an entire kit.

TFS-30400941 Valve cover gaskets, molded with steel core, pair
TFS-30400951 Oil pan gasket, one-piece molded, each
Intake manifold gaskets, 23° cylinder heads, pair
TFS-31800921 Intake manifold gaskets, 18° cylinder heads, pair
TFS-31800931 Header gaskets, 18° cylinder heads, pair

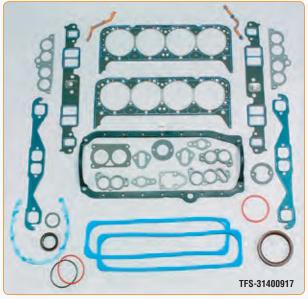


# Standard Gasket Sets for Small Block Chevrolet

These Trick Flow gasket sets are ideal for stock or mild performance engine buildups. They include everything required to seal an engine, including header gaskets, for about the same price as other companies' less complete kits.

TFS-3140E915 Engine gasket set, pre-1987 (except 400), each TFS-3140E916 Engine gasket set, 400, each

5-3140E916 Engine gasket set, 400, each



# Premium Gasket Sets for Small Block Chevrolet

Sets include cylinder head gaskets, intake gaskets, exhaust gaskets, valve cover gaskets, oil pan gaskets, and other gaskets specific to the application.

#### **Engine Gasket Sets**

TFS-31400915 Engine gasket set, pre-1987 (except 400), each
TFS-31400916 Engine gasket set, 400, each
TFS-31400917 Engine gasket set, 1987-95 (except LT1), each
TFS-31400911 Engine gasket set, 1992-97 LT1, each

#### **Head Gasket Sets**

Sets include head gaskets, intake gaskets, exhaust gaskets, valve cover gaskets, and other gaskets specific to the application.

TFS-31400905 Head gasket set, pre-1987 (except 400), each

TFS-31400906 Head gasket set, 400, each

TFS-31400907 Head gasket set, 1987-95 (except LT1), each



# PowerOval® 280 Cylinder Heads for Big Block Chevrolet

Trick Flow PowerOval 280 cylinder heads for big block Chevy are an ideal upgrade from factory cast iron heads. They feature an oval intake port design that produces

excellent low- and mid-range torque and horsepower, plus more efficient heart-shaped, CNC-profiled combustion chambers, .300" raised exhaust ports, extra-thick decks and walls for porting, and Fast As Cast® runners for near-CNC-ported performance at standard cast head prices. CNC bowl blended valve seat transitions promote high velocity and huge airflow volume and 24 degree valve angles with 4 degree side cants further increase airflow.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



A356-T61 aluminum Material: Combustion Chamber Volume: 113cc CNC-profiled Intake Port Volume: 280cc Fast As Cast Intake Port Location: Stock

TFS-4131T002-M13

1.820" x 2.050" oval Intake Port Dimensions: Intake Gaskets: Fel-Pro 1212

2.190" (TFS-41300211) Intake Valve Diameter: Intake Valve Seat: Ductile iron interlock (TFS-41400271)

Exhaust Port Volume: 129cc Fast As Cast Exhaust Port Location: Raised .300" from stock **Exhaust Port Dimensions:** 1.650" x 1.800" D-shape

Exhaust Gaskets: Fel-Pro 1412 Exhaust Valve Diameter: 1.880" (TFS-41300212)

Ductile iron interlock (TFS-54400272) Exhaust Valve Seat: Valve Angles: Intake 24%4°, exhaust 15%4° Valve Guide Material: Bronze alloy (TFS-54500253-1) Valve Seals: Viton® fluoroelastomer (TFS-30400454)

Valve Seat Angles: 45° x multi-angle

Valve Stem Locks:

Guideplates:

Valve Spring Pocket Diameter: 1.760" Valve Spring Cups: 1.640" (TFS-41400434)

Valve Spring I.D. Locators: 1.550" (TFS-21400440)

10° x 1.550" o.d. + .050" chromoly steel Valve Spring Retainers: (TFS-41400423)

10° x 1.550" o.d. + .050" titanium

(TFS-214T0525)

10° x 1.625" o.d. titanium (TFS-214T0620)

10° machined steel with lash cap recess

(TFS-52400444)

Valve Springs, Standard: 1.550" o.d. dual spring with damper

(TFS-16094-16)

138 lbs. @ 1.950" installed height 430 lbs. @ 1.250" open 420 lbs. per inch rate

.700" maximum valve lift

1.560" o.d. dual spring with damper Valve Springs, Option 1: (TFS-16318-16)

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open

500 lbs. per inch rate .700" maximum valve lift

1.640" o.d. dual spring with damper Valve Springs, Option 2:

(TFS-16414-16)

250 lbs. @ 2.000" installed height

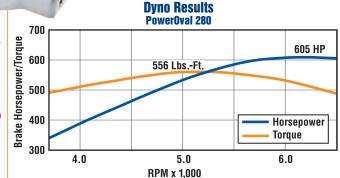
800 lbs. @ 1.150" open 600 lbs. per inch rate .850" maximum valve lift 3/8" (TFS-41400624)

7/16" (intake TFS-41400613, Rocker Arm Studs: exhaust TFS-41400614)

TFS-41400621 (1.7 ratio, 7/16" studs) Minimum Bore Diameter: 4.094"

Cylinder Head Bolts: TFS-92002 TFS-41394375-040 Head Gaskets: Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3924 Viton® is a registered trademark of DuPont Performance Elastomers.



Test Engine: 10.25:1 compression 460 c.i.d. with Trick Flow PowerOval® 280 cylinder heads (TFS-41310002), COMP Cams solid roller camshaft (248°/254° duration @ .050"; .653"/.650" lift; 106° lobe separation), Trick Flow 1.7 ratio roller rocker arms (TFS-41400621), Edelbrock Victor intake manifold, Hooker Super Competition headers with 2" primaries, 31/2" dual exhaust with Flowmaster mufflers.

## PowerOval 280 Heads, Fast As Cast Runners, Assembled

TFS-41310001-M13 1.550" dual valve springs, 280cc intake runners TFS-41310002-M13 1.560" dual valve springs, 280cc intake runners TFS-4131T002-M13 1.560" dual valve springs and titanium retainers,

280cc intake runners

TFS-4131T003-M13 1.640" dual valve springs and titanium retainers, 280cc intake runners

	Airflow Results PowerOval 280	
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	74	64
.200"	160	113
.300"	231	146
.400"	275	178
.500"	316	209
.600"	336	240
.700"	347	264

Tests conducted at 28" of water (pressure). Bore size: 4.250"; exhaust with 2" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

# Trick Flow PowerOval® Heads Make 20 More Horsepower Than the Competition!

At Trick Flow, the proof is in the dyno sheet.

As tested on a Chevy 454 (10.25:1 CR. .653"/.650" lift solid roller cam, 850 cfm carburetor and Edelbrock Air-Gap intake), Trick Flow PowerOval 280 Cylinder Heads for Big Block Chevrolet made 601 HP—20 more horsepower than the closest competing head.

That's Horsepower by Design!

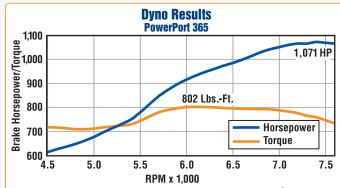
# PowerPort® 320 and 365 Cylinder Heads for Big Block Chevrolet

Trick Flow PowerPort 365 and 320 cylinder heads for big block Chevy deliver the exceptional power potential and competition level durability required for heavily modified engines.

Want proof? The extreme performance PowerPort 365 heads flow a massive 424 cfm @ .900" lift. The high-strength aluminum castings withstand very high compression and RPM. Plus, the heads' rectangularshaped 365cc CNC Competition Ported runners, 119cc heart-shaped chambers, 24° intake valve angles with 4° side cants for additional airflow volume, and high quality valvetrain components are dyno-proven to turn ordinary engines into contenders. In fact, these heads are so powerful they're recommended for 500 plus cubic inch engines.

The PowerPort 320 heads are no slouches in the power department either. With Fast As Cast® runners that flow almost as much as fully CNC-ported heads and many of the same features as the 365 heads, PowerPort 320 heads deliver the strong mid- to high-RPM performance that made Trick Flow famous—but for smaller cubic inch, lower RPM high performance applications.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 13.86:1 compression 572 c.i.d. with Trick Flow PowerPort® 365 cylinder heads (TFS-4141T804-C02), solid roller camshaft (285°/298° duration @ .050"; .900"/.828" lift; 114° lobe separation), 1.8/1.7 ratio shaft mount roller rocker arms, Trick Flow R-Series intake manifold (TFS-41400111), Holley Gen 3 Ultra Dominator 1,425 cfm carburetor, Trick Flow by Stainless Works headers (TFS-DBBC238250), Q16 racing fuel.

#### PowerPort 320 Heads, Fast As Cast Runners, Assembled

TFS-41410001-M22 2.250" intake valves and 1.550" dual valve springs,

320cc intake runners

TFS-41410002-M22 2.250" intake valves and 1.560" dual valve springs,

320cc intake runners

2.300" intake valves and 1.560" dual valve springs, TFS-41410003-M22

320cc intake runners

2.300" intake valves, 1.560" dual valve springs, TFS-4141T003-M22

and titanium retainers, 320cc intake runners 2.300" intake valves, 1.640" dual valve springs. TFS-4141T803-M22

and titanium retainers, 320cc intake runners

#### PowerPort 365 Head, CNC Competition Ported Runners, Assembled

TFS-4141T804-C02 2.350" intake valves, 1.645" triple valve springs, and titanium retainers, 365cc intake runners

Valve Springs, PowerPort 365 1.645" o.d. triple spring (TFS-16948-16) 332 lbs. @ 2.100" installed height

950 lbs. @ 1.200" open 688 lbs. per inch rate .900" maximum valve lift

PowerPort 320: 3/8" (TFS-41400624) 7/16" (intake TFS-41400613, Guideplates: Rocker Arm Studs:

exhaust TFS-41400614)

TFS-41400621 (1.7 ratio, 7/16" studs) Rocker Arms:

Minimum Bore Diameter: Cylinder Head Bolts: 4.250" TFS-92002 TFS-41394540-040 Head Gaskets:

Longer than stock required Pushrod Length: Spark Plugs: Autolite 3924 Viton® is a registered trademark of DuPont Performance Elastomers.

# **Specifications**

TFS-4141T804-C02

A-356-T61 aluminum

Combustion Chamber Volume: PowerPort 320: 122cc CNC-profiled PowerPort 365: 119cc CNC-profiled Intake Port Volume: PowerPort 320: 320cc Fast As Cast

PowerPort 365: 365cc CNC Competition Ported

Intake Port Location: Stock Intake Port Dimensions:

1.750" x 2.500" rectangular PowerPort 320: Mr. Gasket 121 Intake Gaskets:

PowerPort 365: SCE Gaskets 213105 PowerPort 320 01/02: 2.250" (TFS-41400210) PowerPort 320 03: 2.300" (TFS-41400211) PowerPort 365: 2.350" (TFS-41400211) Ductile iron interlock (TFS-41400271) Intake Valve Diameter:

Intake Valve Seat: Exhaust Port Volume: PowerPort 320: 137cc Fast As Cast PowerPort 365: 135cc CNC Competition Ported

Raised .300" from stock 1.770" x 1.930" D-shape Exhaust Port Location: Exhaust Port Dimensions: Exhaust Gaskets: Fel-Pro 1412 or TFS-41490931 Exhaust Valve Diameter:

PowerPort 320: 1.880" (TFS-41300212) PowerPort 365: 1.880" (TFS-414C0212) Ductile iron interlock (TFS-54400272) Exhaust Valve Seat: Valve Angles: Intake: 24°/4°, exhaust 15°/4°

PowerPort 320: Bronze alloy (TFS-54500253-1) PowerPort 365: Bronze alloy (TFS-51600251) Valve Guide Material: PowerPort 320: Viton® fluoroelastomer Valve Seals:

(TFS-30400454)

PowerPort 365: Viton® fluoroelastomer

(TFS-54500455) 45° x multi-angle Valve Seat Angles:

Valve Spring Pocket Diameter: 1.760"

Valve Spring Cups: 1.640" (TFS-41400434) Valve Spring I.D. Locators: 1.550" (TFS-21400440)

10° x 1.550" o.d. + .050" chromoly steel Valve Spring Retainers:

(TFS-41400423) PowerPort 320:

Valve Springs

Option 2:

10° x 1.550" o.d. + .050" titanium

(TFS-214T0525) 10° x 1.625° o.d. titanium (TFS-214T0620) 10° x 1.625° o.d. titanium (TFS-214T0650) PowerPort 320: 10° machined steel with lash PowerPort 365: Valve Stem Locks:

PowerPort 320 Standard:

PowerPort 320: 10° machined steel with lash cap recess (TFS-52400444)
PowerPort 365: 10° steel bead lock with lash cap recess (TFS-54500445)
1.550" o.d. dual spring with damper (TFS-16094-16)
138 lbs. @ 1.950" installed height
430 lbs. @ 1.250" open
420 lbs. per inch rate

420 lbs. per inch rate .700" maximum valve lift

1.560" o.d. dual spring with damper Option 1:

(TFS-16318-16) 240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open 500 lbs. per inch rate

.700" maximum valve lift 1.640" o.d. dual spring with damper

(TFS-16414-16) 250 lbs. @ 2.000" installed height

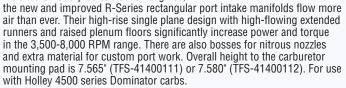
800 lbs. @ 1.150" open 600 lbs. per inch rate .850" maximum valve lift





# R-Series Intake Manifold for Big Block Chevrolet

Optimized to work with Trick Flow PowerPort® 365 cylinder heads installed on 500-plus cubic inch engines,



TFS-41400111 Manifold, 9.800" deck height, each
TFS-41400112 Manifold, 10.200" deck height, each



# Roller Rocker Arms for Big Block Chevrolet

These aluminum roller rockers are excellent for use with Trick Flow heads. They can be used on most factory Chevy and aftermarket heads, too.

They feature heat-treated CNC-machined bodies, premium needle-bearing fulcrums, roller tips, and a machined relief for improved valve spring clearance. Trick Flow roller rockers are sold in sets of 16 and come complete with polylocks.

TFS-41400621 Rocker arms, 1.7 ratio, 7/16" studs, set of 16



These CNC-machined stud girdles help control valve lift and timing changes due to stud flex, allowing more consistent high-RPM performance. Each stud girdle is anodized blue and comes with high-quality mounting hardware and hardened adjusting nuts. Tall-style valve covers are required.

TFS-41400700 Rocker stud girdles, 7/16", pair

# True Roller Timing Chain Set for Big Block Chevrolet

This billet steel timing set for big block Chevrolet is engineered for durability and versatility. The .250" diameter, double-row true roller chain and black oxide-coated crank sprocket are heat-treated for unrivaled strength. The CNC-machined cam gear has nine crank sprocket keyways for zero and +/- 2°, 4°, 6°, or 8° timing adjustments. The timing marks are laser-etched.

TFS-41478510 Timing chain set, each





# Laser-Etched Fabricated Aluminum Valve Covers for Big Block Chevrolet

These fabricated valve covers for big block Chevrolet engines feature a laser-etched Trick Flow logo for bold, distinctive looks. The covers have a thick, 3/8" billet mounting rail for a leak-free fit, and their tall height (3%" overall) provides plenty of clearance for roller rocker arms and stud girdles. Made from .083" thick aluminum to reduce engine weight.

TFS-41400805 Valve covers, natural, pair





## **Carburetor Spacers**

Give your carburetor a little more space for a noticeable power boost with a premium quality Trick Flow carburetor spacer.

The unique, CNC-ported exit shape on Trick Flow's four-hole carburetor spacers smooth the airflow between the bottom of the carburetor and the intake manifold plenum for more torque and horsepower. Available in two versions, phenolic/composite and billet aluminum, they fit Holley 4150 and other square bore-style carbs.

The open-style spacer for Holley Dominator carbs features a cloverleaf design that increases power in the mid-to-upper RPM range.

The spacers are 1" thick and come complete with mounting studs and gaskets.

TFS-2141501B Billet aluminum spacer, black anodized,

square bore carburetors, each

TFS-2141501C Phenolic/composite spacer, square bore carburetors, each Phenolic/composite spacer, Holley Dominator carburetors, each

# Camshafts • Top-End Engine Kit • Cylinder Head Bolt Kits • Gaskets

for Big Block Chevrolet

# Track Max® Hydraulic Roller Camshaft for Big Block Chevrolet

₩ MADE USA

Get significant horsepower and torque increases with Trick Flow Track Max camshafts. The camshafts are dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The cams are cut from a premium blank core and checked for proper hardness before being precision ground to exact tolerances.

	Hydraulic Roller Camshaft Specifications				
Part Number	Part Number Characteristics Duration @ .050" Valve Lift w/1.7 Rocker Arms Sep.				
TFS-41302000	Fair idle, good midrange and strong top-end power, 3,000-6,200 RPM powerband. 2,500-3,000 RPM stall converter recommended. Compression: 9.5:1 minimum.	236°/242°	.600"/.600"	112°	

	Mechanical Roller Camshaft Specifications			
Part Number	Part Number Characteristics Duration @ .050" Valve Lift w/1.7 Rocker Arms Sep.			
TFS-41404002	Rough idle, 4/7 cylinder firing order swap, strong top-end power, 5,400-7,900 RPM powerband. 500 plus minimum cubic inches and 5,000 RPM stall converter recommended. Compression: 12.5:1 minimum.	285°/298°	.850"/.828"	114°



# TFS-K413-580-560 Dyno Results 500 501 Lbs.-Ft. 583 HP 400 300 4.0 5.0 6.0 RPM x 1,000 Test Engine: 468 c.i.d. short block with domed pistons, Trick Flow PowerOval® 280

Test Engine: 468 c.i.d. short block with domed pistons, Trick Flow PowerOval® 280 cylinder heads (TFS-41310001), Trick Flow Track Max® hydraulic roller camshaft (TFS-41302000), 10.25:1 compression, an Edelbrock Performer RPM Air Gap intake manifold, and a Holley 850 cfm carburetor.

# PowerOval® Top-End Engine Kit for Big Block Chevrolet

WMADE USA

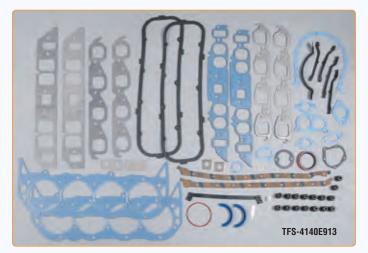
Take the time and guesswork out of designing a winning engine combination and save hard-earned cash with this Trick Flow PowerOval top-end engine kit. Carefully tuned by Trick Flow engineers to deliver optimum horsepower and torque for your big block Chevrolet, this kit is built around a set of our dyno-proven PowerOval 280 cylinder heads. You also get a Track Max hydraulic roller camshaft, matching lifters, 3/8" pushrods, 1.7 ratio roller rocker arms, billet steel double roller timing chain set, cylinder head bolts, and a gasket set.

TFS-K413-580-560 Top-end engine kit, 580 HP/560 lbs.-ft., each

# Cylinder Head Bolt Kits for Big Block Chevrolet

Keep combustion where it belongs!
Trick Flow's high-quality cylinder head bolt kits provide consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. A black oxide finish protects them from wear and corrosion. The kits contain all the bolts you need to install a pair of heads, including hardened washers.

TFS-92001 TFS-92002 Cylinder head bolt kit, OE cast iron heads, hex head, each Cylinder head bolt kit, aftermarket heads, hex head, each



# Standard Gasket Sets for Big Block Chevrolet

These Trick Flow gasket sets are ideal for stock or mild performance engine buildups. They include everything required to seal an engine, including header gaskets, for about the same price as other companies' less complete kits.

TFS-4140E912 Engine gasket set, oval port intake, each
TFS-4140E913 Engine gasket set, rectangular port intake, each



# Trick Flow by Wiseco PowerPort® Forged Piston Sets for Big Block Chevrolet

Trick Flow by Wiseco lightweight forged pistons are fully skirted and precision-machined from premium aluminum alloy to fit big block Chevy engines equipped with Trick Flow PowerPort 365 cylinder heads. The pistons feature 3D profile dome milling, oversized valve reliefs, precision-fit wrist pins, and Spirolox retainers.

The pistons are available in two different bore diameters, 4.600" and 4.625". All pistons use ring sets with .043" top rings, .043" second rings, and 3.0mm oil control rings (see chart for details). Sold in sets of 8.

 ${\bf NOTE:}$  Compression ratios are based on the 119cc combustion chambers of Trick Flow PowerPort 365 cylinder heads.



				Specific	ations					
Part Numbers	Engine Size	Bore	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio	Pin Dia.	Rings	
TFS-41404600	565 (454)	4.600"	4.250"	6.536"	1.129"	40.5cc	14.0:1	.990"	.043", 043", 3.0mm	
TFS-41404625	572 (454)	4.625"	4.250"	6.536"	1.129"	40.5cc	14.2:1	.990"	.043", 043", 3.0mm	

# Trick Flow Gets 1,071 Horsepower Out of 572 Cubic Inches!

What does it take to extract over 1,000 naturally-aspirated horsepower out of a 572 cubic inch big block Chevy? Good engine-building skills and off-the-shelf parts from Trick Flow! The 572 made 1,071 peak horsepower at 7,400 RPM and 802 lbs.-ft. peak torque at 6,200 RPM on 116 octane Q16 fuel using several Trick Flow parts to make it happen.

# **572 Engine Build Parts List**

#### Long Block

- Trick Flow by Wiseco PowerPort forged pistons (TFS-41404625)
- Trick Flow PowerPort 365 cylinder heads (TFS-4141T804-C02)
- Trick Flow R-Series intake manifold (TFS-41400111)
- Dart Big M iron engine block, 9.800" inch deck
- Crower Maxi-Light 4.250" forged steel crank
- · Crower Maxi-Light I-beam steel connecting rods

#### Valvetrain

- Trick Flow Track Max® solid roller camshaft (TFS-42404002)
- Crower Severe Duty Cutaway roller lifters
- Crower 1.8/1.7 ratio shaft rocker arms
- Jesel belt drive system

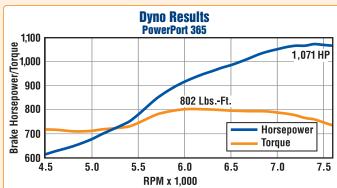
#### **Oiling System**

- Moroso Drag Race oil pan
- · Moroso Blueprinted high volume oil pump
- · Moroso breather tank
- · Moroso vacuum pump system

#### **Other Parts**

- Trick Flow by Stainless Works dragster headers (TFS-DBBC238250)
- Holley 1,425 cfm Gen 3 Ultra Dominator carburetor
- MSD crank trigger, Pro-Billet distributor, and Super Conductor spark plug wires
- Meziere 200 Series electric water pump
- ATI Super Damper harmonic damper and timing pointer
- SCE gaskets
- ARP fasteners
- Clevite bearings





Test Engine: 13.86:1 compression 572 c.i.d. with Trick Flow PowerPort® 365 cylinder heads (TFS-4141T804-C02), solid roller camshaft (285°/298° duration @ .050°; .900°/.828° lift; 114° lobe separation), 1.8/1.7 ratio shaft mount roller rocker arms, Trick Flow R-Series intake manifold (TFS-41400111), Holley Gen 3 Ultra Dominator 1,425 cfm carburetor, Trick Flow by Stainless Works headers (TFS-DBBC238250), .016 racing fuel.

Twisted Wedge® 185 and Twisted Wedge® Track Heat® 185 Cylinder Heads for Ford 4.6L/5.4L 2V

CARB

Exempt

Trick Flow Twisted Wedge and Track Heat 185 series cylinder heads are the best aftermarket heads for modular-powered Fords. The secret? Twisted Wedge combustion chambers and intake valves moved on the opposite side of the cam. The result is dramatic increases in mid-lift airflow, piston-to-valve clearance, and valve-to-bore clearance for using higher lift cams and larger valves without altering bore size or flycutting

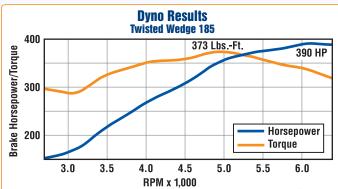
Other features include OE PI-style intake inlets, Fast As Cast® runners that deliver near-CNC-ported airflow, CNC-profiled combustion chambers, 3/4" thick decks, patented replaceable cam bearing journals\*, and 3/4"-reach spark plugs.

The heads fit all 2V Romeo and Windsor engines and accept all OE-style camshafts, followers, lash adjusters, valve covers, and most OE Ford front covers. Twisted Wedge 185 heads are intended for mildly modified engines; Twisted Wedge Track Heat 185 heads are for engines with power adders and/or high RPM applications.

Twisted Wedge and Track Heat 185 heads are emissions-legal under CARB E.O. #D-747-3 for 1996-2004 Ford vehicles with 4.6L/5.4L 2V engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

\*The replaceable cam bearing journals are protected under U.S. patent number 8,231,278.



Test Engine: 10.35:1 compression 4.6L 2V with Trick Flow Twisted Wedge® 185 cylinder heads (TFS-51910001-M38), Trick Flow Track Max® hydraulic roller camshaft (TFS-51802001), stock intake manifold, followers, and PCM (SCT tuned), Trick Flow TFX™ cold air intake kit (TFS-23066), Trick Flow TFX™ 70mm throttle body (TFS-24070), Trick Flow upper plenum (TFS-51800001), long tube headers with 15% primaries, 3" dual exhaust with Flowmaster mufflers.

#### Twisted Wedge Track Heat 185 Heads, Fast As Cast Runners, **Assembled**

TFS-51910003-M38 38cc combustion chambers, 125 lb. beehive valve springs,

185cc intake runners

TFS-51910004-M44 44cc combustion chambers, 125 lb. beehive valve springs,

185cc intake runners

TFS-51910005-M38 38cc combustion chambers,

150 lb. dual valve springs, 185cc intake runners

TFS-51910006-M44 44cc combustion chambers,

150 lb. dual valve springs, 185cc intake runners

#### **Airflow Results Twisted Wedge 185** Lift Value **Intake Flow CFM Exhaust Flow CFM** .100 58 49 200 125 101 300 175 143 224 .400 174 .500 250 179 .600 252 188 Tests conducted at 28" of water (pressure).

Bore size: 3.562": exhaust with 13/4" pipe.

### **Specifications**

TFS-51910001-M38

Material: A356-T61 aluminum Combustion Chamber Volume: M38: 38cc CNC-profiled M44: 44cc CNC-profiled Intake Port Volume: 185cc Fast As Cast

Intake Port Location: Stock

Intake Port Dimensions: 1.500" x 1.880" OE Ford PI

Intake Gaskets: OE Ford PI

Intake Valve Diameter: M38: 1.840" (TFS-51900211) M44: 1.840" (TFS-51900213) Intake Valve Seat: Ductile iron (TFS-51900271)

Exhaust Port Volume: 93cc Fast As Cast **Exhaust Port Location:** Stock

**Exhaust Port Dimensions:** 1.470" x 1.250" D-shape

OE Ford PI Exhaust Gaskets:

M38: 1.450" (TFS-51900212) M44: 1.450" (TFS-51900214) Exhaust Valve Diameter: Ductile iron (TFS-51900272) Exhaust Valve Seat:

Valve Angles: Trick-Alloy powdered metal (intake TFS-51900251, Valve Guide Material:

exhaust TFS-51900252) 01/02/03/04: Viton® fluoroelastomer Valve Seals:

(TFS-51900454)

05/06: Viton® fluoroelastomer (TFS-52900454) 45° x multi-angle

Valve Seat Angles: Valve Spring Pocket Diameter: 1 180'

Valve Spring Cups:

05/06: 1.100" (TFS-52900434) 7° x .875" o.d. chromoly steel (TFS-51900423) 05/06: 7° x 1.100" o.d. chromoly steel Valve Spring Retainers:

(TFS-52900423)

7° machined steel (TFS-51900444) Valve Stem Locks:

.940"/1.050" o.d. beehive spring (TFS-16519-16) 90 lbs. @ 1.600" installed height Valve Springs: Twisted Wedge 185

205 lbs. @ 1.020" open 209 lbs. per inch rate

.600" maximum valve lift Valve Springs: 1.000"/1.060" o.d. beehive spring (TFS-16125-16)

Twisted Wedge 125 lbs. @ 1.600" installed height

Track Heat 185, Standard 275 lbs. @ 1.020" open

275 lbs. per inch rate .580" maximum valve lift

1.100" dual spring (TFS-16521-16) Valve Springs: 150 lbs. @ 1.500" installed height Twisted Wedge

Track Heat 185, Optional 290 lbs. @ .900" open 233 lbs. per inch rate .650" maximum valve lift

Rocker Arms: TFS-51800510 (OE-style) TFS-52900510 (Ford GT-style)

3.552" Minimum Bore Diameter:

Cylinder Head Bolts: TFS-92008

TFS-5180901L and TFS-5180901R Head Gaskets:

Motorcraft SP432 Spark Plugs:

Accepts all Romeo and Windsor valve covers plus most OE Ford front covers with 8mm head bolt holes.

Viton® is a registered trademark of DuPont Performance Elastomers

#### Twisted Wedge 185 Heads, Fast As Cast Runners, Assembled

38cc combustion chambers, 90 lb, beehive valve springs. TFS-51910001-M38 185cc intake runners

TFS-51910002-M44 44cc combustion chambers, 90 lb, beehive valve springs.

185cc intake runners



CARB

Exemn



Trick Flow Twisted Wedge Race 195 cylinder heads are perfect for big bore engine builds, superchargers and turbos, high compression E85, big shot nitrous oxide, and other mega-power combinations.

The heads have the same features of the Twisted Wedge 185 series heads—Twisted Wedge combustion chambers, altered intake valve positions, OE PI-style intake inlets, CNC-profiled combustion chambers, 3/4" thick decks, patented replaceable cam bearing journals\*, and 3/4"-reach spark

plugs—but have fully CNC Competition Ported runners with a premium high resolution surface finish for ultimate performance. Larger, stronger valves and race-duty valvetrain components give these heads 8,000-plus RPM capability.

Twisted Wedge Race 195 heads are emissions-legal under CARB E.O. #D-747-3 for 1996–2004 Ford vehicles with 4.6L/5.4L 2V engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

\*The replaceable cam bearing journals are protected under U.S. patent number 8,231,278



Intake Port Volume: Intake Port Location: Stock Intake Port Dimensions: 1.700" x 2.000" OE Ford PI

**Specifications** 

Intake Gaskets: OE Ford PI

Intake Valve Diameter: 1.900" (TFS-52900211) Intake Valve Seat: Ductile iron (TFS-52900271) Exhaust Port Volume: Exhaust Port Location: 95cc CNC Competition Ported Stock

Exhaust Port Dimensions: 1.470" x 1.250" D-shape OE Ford PI 1.470" (TFS-52900212) **Exhaust Gaskets:** 

Exhaust Valve Diameter: Ductile iron (TFS-51900272) Exhaust Valve Seat: Valve Angles:

Valve Guide Material: Trick-Alloy powdered metal (intake TFS-51900251, exhaust TFS-51900252)

Valve Seals: Viton® fluoroelastomer (TFS-52900454)

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.180"

Material:

1.110" (TFS-52900444) Valve Spring Cups:

7° x 1.100" o.d. chromoly steel (TFS-52900424) 7° machined steel (TFS-52900450) Valve Spring Retainers: Valve Stem Locks: Valve Springs: 1.100" dual spring (TFS-16521-16)

150 lbs. @ 1.500" installed height 290 lbs. @ .900" open 233 lbs. per inch rate

.650" maximum valve lift Rocker Arms: TFS-51800510 (OE-style) TFS-52900510 (Ford GT-style)

Minimum Bore Diameter: 3.572" Cylinder Head Bolts: TFS-92008

Head Gaskets: TFS-5180902L and TFS-5180902R

Spark Plugs: Motorcraft SP432

NOTES: Accepts all Romeo and Windsor valve covers plus most OE Ford front covers with 8mm end bolt holes.

Must use head gaskets with a minimum bore diameter of 3.700".

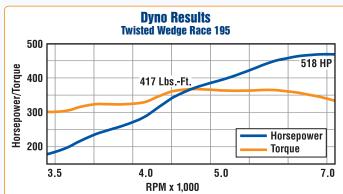
Viton® is a registered trademark of DuPont Performance Elastomers.



# Power Steering Reservoir Bracket for Ford 5.4L 2V Trucks

Use this hefty steel bracket to move your 1997-2010 5.4L Ford truck's power steering reservoir from the cylinder head to the valve cover so you can run Trick Flow Twisted Wedge 185/195 series heads. Includes flange bolts and captive nut clips for easy installation.

TFS-51954PSB Power steering reservoir bracket, each



Test Engine: 11.67:1 compression 5.3L Ford Racing Boss engine with 3.700° bore, Twisted Wedge® Race 195 cylinder heads (TFS-52910002-C01), COMP Cams hydraulic roller camshaft (252°/256° duration @ .050°; .625′/.625° lift; 113° lobe separation), Trick Flow Track Heat® intake manifold (TFS-51800002), 90mm mass airflow sensor, PaceSetter headers with 1 5/8" primaries, 3" dual exhaust with Flowmaster mufflers.

#### Twisted Wedge Race 195 Heads, CNC Competition Ported Runners. Assembled

TFS-52910002-C01 195cc intake runners

Airflow Results Twisted Wedge Race 195					
Lift Value	Intake Flow CFM	Exhaust Flow CFM			
.100"	61	51			
.200"	131	105			
.300"	191	152			
.400"	234	183			
.500"	262	195			
.600"	278	199			
Tacto	conducted at 28" of water (pres	cura)			

Bore size: 3.700"; exhaust with 13/4" pipe.

# 8mm Timing Cover **Bolt and Stud Kit** for Ford 4.6L/5.4L 2V

Trick Flow's 8mm timing cover bolt and stud kit allows you to maintain factory accessory mounting when using our Twisted Wedge 185/195 series cylinder heads on

modular engines originally equipped with 10mm bolts and studs.

TFS-51954TCB Timing cover bolt and stud kit, each



Track Max® Hydraulic Roller Camshafts and Valve Spring Upgrade Kits for Ford 4.6L/5.4L 2V

Improve the performance of Ford 4.6L or 5.4L 2Vs with Trick Flow's Track Max camshafts. Choose the smaller cams for increased low- to mid-range torque and horsepower in naturally aspirated engines. The bigger cams will move the power curve up in the RPM range and are ideal for extreme duty forced induction engines. All cams include new 12mm bolts and washers.

Trick Flow can bundle your cams with the appropriate Trick Flow by PAC Racing valve spring upgrade kit for more performance gains. The first option includes Trick Flow by PAC Racing beehive-style springs (TFS-16519-16) that provide 90 lbs. of seat pressure at 1.570" installed height, 205 lbs. at 1.020" open, and a maximum lift of .600". The second option includes Trick Flow by PAC Racing beehive-style valve springs (TFS-16125-16) with 125 lbs. of seat pressure at 1.600" installed height, 275 lbs. at 1.020" open, and a maximum lift of .580"

The kits come complete with camshafts, valve springs, chromoly retainers, locks, seals, and instructions.



Camshaft Specifications						
Part Number	Characteristics	Duration @ .050"	Valve Lift w/OEM Followers	Lobe Sep.		
TFS-51802001	Fair idle, strong midrange power and torque, 1,500-5,000 RPM powerband. Works with stock PI heads or Trick Flow Twisted Wedge® 185 series heads; tuning recommended for maximum performance. Piston-to-valve clearance measurement recommended. Compression: stock.	228°/230°	.550"/.550"	112°		
TFS-51802002	Fair idle, strong mid to top-end power, 1,800-6,500 RPM powerband. Works with stock PI heads or Trick Flow Twisted Wedge 185 series heads; tuning recommended for maximum performance. 3.73 or numerically higher gear. Piston-to-valve clearance measurement required. Compression: stock minimum.	234°/234°	.580"/.580"	114°		

Camshaft and Valve Spring Upgrade Kit Specifications						
Part Number	Characteristics	Duration @ .050"	Valve Lift w/ OEM Followers	Lobe Sep.	Valve Springs	
TFS-K51802001	Fair idle, strong midrange power and torque, 1,500-5,000 RPM powerband. Works best with stock PI heads or Trick Flow Twisted Wedge 185 series heads; tuning recommended for maximum performance. Piston-to-valve clearance measurement recommended. Compression: stock.	228°/230°	.550"/.550"	112°	TFS-16519-16	
TFS-K51802002	Fair idle, strong mid- to top-end power, 1,800-6,500 RPM powerband. Ideal for mild engines with power adders up to 5-6 psi. Works best with stock PI heads or Trick Flow Twisted Wedge 185 series heads; tuning recommended for maximum performance. 3.73 or numerically higher gear. Piston-to-valve clearance measurement required. Compression: stock minimum.	234°/234°	.580"/.580"	114°	TFS-16519-16	
TFS-K51802003	Fair idle, strong top-end power, 1,500-6,500 RPM plus powerband. Works best with Trick Flow Twisted Wedge 185 or 195 series heads; tuning recommended for maximum performance. 3.73 or numerically higher gear. Piston-to-valve clearance measurement recommended. Compression: stock minimum.	228°/230°	.550"/.550"	112°	TFS-16125-16	
TFS-K51802004	Fair idle, strong top-end power, 6,500 RPM plus powerband. Ideal for extreme duty engines with power adders rated at 15 psi-plus. Works best with Trick Flow Twisted Wedge 185 or 195 series heads; tuning recommended for maximum performance. 3.73 or numerically higher gear. Piston-to-valve clearance measurement required. Compression: stock minimum.	234°/234°	.580"/.580"	114°	TFS-16125-16	

# Horsepower How-To Series: 4.6L Mustang— **Installing Trick Flow Track Max® Camshafts** and Twisted Wedge® Cylinder Heads DVD

Horsepower and Trick Flow teamed up to produce a How-To DVD for enthusiasts that covers the technical aspects of upgrading camshafts and cylinder heads to get more performance from Ford's 4.6L 2V engines, using straightforward and easy to understand demonstrations.

Includes camshaft and valvetrain removal and installation, cylinder head disassembly and installation, timing system removal and replacement, and how to properly degree camshafts. Plus detailed tech tips, specs, sample dyno runs, and a huge buyer's guide that contains all the right parts, tools, and accessories you'll need to get the performance gains you want the first time.









# **Valve Cover-Mount Ignition Systems** for Ford 4.6L/5.4L 2V

Attention mod motor racers! Trick Flow's Valve Cover-Mount Ignition System allows you to take complete and accurate control of your race-prepped motor's ignition timing in applications with custom fuel management systems or carburetor conversions.

Designed specifically for use with Trick Flow's Twisted Wedge® and Twisted Wedge Track Heat® cylinder heads for the 4.6L 2V, these systems feature a valve cover-mounted MSD distributor driven off the driver's side camshaft plus a pair of modified Trick Flow cast aluminum valve covers, a distributor mount and hold-down, a hex drive cam bolt and washer, spark plug wires, and all necessary brackets and mounting hardware.

#### NOTES:

- · For racing use only.
- Can only be used with Trick Flow Twisted Wedge<sup>®</sup> and Twisted Wedge Track Heat® cylinder heads for Ford 4.6L 2V.
- Requires relocation of the OE power steering reservoir or conversion to manual rack and pinion steering.
- · An ignition box compatible with an MSD Pro-Billet distributor is required.
- Trick Flow Track Max® harmonic damper TFS-19009 must be used.

#### Valve Cover-Mount Ignition Systems with MSD Pro-Billet Crank **Trigger Distributors**

TFS-K52900801 Valve cover-mount ignition system, Romeo engines, 11-bolt,

TFS-K52911801 Valve cover-mount ignition system, Romeo engines, 11-bolt, black, each

TFS-K5290B801 Valve cover-mount ignition system, Romeo engines, 11-bolt, natural, each

#### Valve Cover-Mount Ignition Systems with MSD Pro-Billet **Dual Pick-Up Distributors**

TFS-K52900803 Valve cover-mount ignition system, Romeo engines, 11-bolt,

TFS-K52911803 Valve cover-mount ignition system, Romeo engines, 11-bolt,

TFS-K5290B803 Valve cover-mount ignition system, Romeo engines, 11-bolt, natural, each

#### **Valve Cover-Mount Ignition Systems Components**

TFS-K5292800 Spark plug wire set, direct fit, includes separators, each TFS-K5295800 Spark plug wire set, universal fit, includes separators and crimp tool, each TFS-5292801 Trick Flow/MSD Pro-Billet dual pick-up distributor, each TFS-5292802 Trick Flow/MSD Pro-Billet crank trigger distributor, each TFS-5292803 Trigger wheel and bracket kit, each

TFS-529008L1 Modified Trick Flow valve cover with distributor mount, left side only, Romeo engines, 11-bolt, silver, each TFS-529118L1 Modified Trick Flow valve cover with distributor mount.

left side only, Romeo engines, 11-bolt, black, each TFS-5290B8L1 Modified Trick Flow valve cover with distributor mount, left side only, Romeo engines, 11-bolt, natural, each



# **Cast Aluminum Valve Cover Kits** and Accessories for Ford 4.6L/5.4L 2V

Trick Flow's lightweight cast aluminum valve covers for Ford 4.6L/5.4L 2V engines are more durable and eliminate the cracking and distortion problems that plague the factory plastic covers. Unique design features include a baffled PCV connection plus baffled and threaded fresh air connections for forced induction applications. The covers come complete with OE-style gaskets, bolts, bolt seals, and two filler caps.

NOTE: Valve covers fit vehicles with left or right side oil fill.

#### Valve Cover Kits

TFS-51800801 Valve cover kit, Romeo engines, 11-bolt, silver, each TFS-51811801 Valve cover kit, Romeo engines, 11-bolt, black, each TFS-5180B801 Valve cover kit, Romeo engines, 11-bolt, natural, each TFS-51800802 Valve cover kit, Windsor engines, 13-/14-bolt, silver, each TFS-51811802 Valve cover kit, Windsor engines, 13-/14-bolt, black, each Valve cover kit, Windsor engines, 13-/14-bolt, natural, each TFS-5180B802 TFS-51800800 Oil filler cap and grommet, each TFS-51800804 Valve cover gaskets, Trick Flow valve covers only, pair Valve cover sealing washers, set of 27 TFS-51800805

#### **PCV Valve Kits**

TFS-51800810 Upgrade PCV and large baffle kit, fits Trick Flow valve covers purchased before 6/1/2012 only, each TFS-51800811 Late model PCV valve conversion kit, fits OEM Ford and Trick Flow valve covers, each





# Replacement Valvetrain Components for Ford 4.6L/5.4L

Trick Flow's line of replacement valvetrain parts for Ford modular V8s feature OEM quality and durability.

Trick Flow adjustable crankshaft sprockets are machined from solid billet steel for durability and adjust in 2 degree increments. The chain tensioners are manufactured from cast iron to OEM specifications and include tensioners for both the left and right cylinder banks. Camshaft bolts are made from quality Grade 10.9 steel with a black oxide finish and fit all non-PI cams (OE and aftermarket) that require 12mm bolts. Timing chain kits are engineered to keep modular engines running smoothly and include two new high tensile strength steel chains plus hex spacers, powder metal cam sprockets, your choice of adjustable or non-adjustable billet steel crank gears, timing chain arms and guides, and two cast iron tensioner assemblies.

#### **Timing Chain Kits**

TFS-51800519 Timing chain kit, non-adjustable crankshaft gear, Ford 4.6L 2V, each TFS-51800520 Timing chain kit, adjustable crankshaft gear, Ford 4.6L 2V, each

# Camshaft Gears, Bolts, Crankshaft Gears, and Spacers

TFS-51800502 Timing gear set with spacers, OEM-style, Ford 4.6L/5.4L 2V, kit
TFS-51800503 Camshaft gear spacers, Ford 4.6L/5.4L 2V, pair
TFS-51800508 Camshaft gears, adjustable, billet steel, Ford 4.6L 2V/4V, set
TFS-51800509 Crankshaft gears, non-adjustable, billet steel, Ford 4.6L 2V, set

#### **Timing Chains, Guides, and Tensioners**

TFS-51800511 Timing chain arms and guides, Ford 5.4L 2V, kit
TFS-51800512 Timing chain only, Ford 4.6L 2V, each
TFS-51800513 Timing chain tensioners, cast iron, Ford 4.6L/5.4L 2V, pair
Timing chain arms and guides, Ford 4.6L 2V, kit

Timing chain only, Ford 5.4L 2V, each

#### **Lash Adjusters**

TFS-51800504

TFS-21400008 Hydraulic lash adjuster, Ford 4.6L/5.4L 2V/4V, each
TFS-21400008-16 Hydraulic lash adjusters, Ford 4.6L/5.4L 2V/4V, set of 16
TFS-21400009 Hydraulic lash adjuster, Ford 4.6L/5.4L 3V, each
TFS-21400009-12 Hydraulic lash adjusters, Ford 4.6L/5.4L 3V, set of 12

#### **Camshaft Followers**

TFS-51800510 Roller follower, OEM-style, Ford 4.6L/5.4L 2V/4V, each
TFS-51800510-16 Roller followers, OEM-style, Ford 4.6L/5.4L 2V/4V, set of 16
TFS-51800610 Roller follower, OEM-style, Ford 4.6L/5.4L 3V, each
TFS-51800610-12 Roller followers, OEM-style, Ford 4.6L/5.4L 3V, set of 12
TFS-52900515 Ford GT-style roller follower with low restriction lash adjuster, Ford 4.6L/5.4L 2V/4V, set



# Twisted Wedge® Top-End Engine Kits for Ford 4.6L 2V



Get the most out of your Ford 4.6L 2V with Trick Flow's Twisted Wedge top-end engine kits. Trick Flow engineers tune each kit to deliver optimum horsepower and torque—taking the time and guesswork out of designing a winning combination and saving you some hard-earned cash in the process.

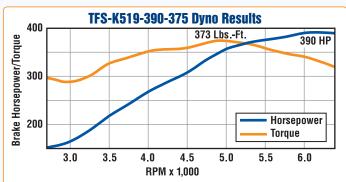
The Twisted Wedge top-end kits are built around a set of our dyno-proven Twisted Wedge® 185 cylinder heads with 90 lb. valve springs. The Twisted Wedge Track Heat® top-end kits feature our race-winning Twisted Wedge Track Heat 185 cylinder heads with 125 lb. valve springs. With each kit, you get your choice of 38cc or 44cc CNC-profiled combustion chambers plus a Track Max® hydraulic roller camshaft set (TFS-51802001), matching followers, lash adjusters, timing chains, valve spring compressor tool, and intake and head gasket kit.

#### Twisted Wedge 185 Top-End Engine Kits

TFS-K519-380-375 380 HP/375 lbs.-ft., 44cc combustion chambers, each TFS-K519-390-375 390 HP/375 lbs.-ft., 38cc combustion chambers, each

#### Twisted Wedge Track Heat 185 Top-End Engine Kits

TFS-K520-380-375 380 HP/375 lbs.-ft., 44cc combustion chambers, each TFS-K520-390-375 390 HP/375 lbs.-ft., 38cc combustion chambers, each



Test Engine: Stock Romeo PI 4.6L short block with 15cc dish pistons, Trick Flow Twisted Wedge® 185 cylinder heads with 38cc CNC-profiled combustion chambers (TFS-51910001-M38), Trick Flow Track Max® hydraulic roller camshafts (TFS-51802001), 10.0:1 compression, stock PI intake manifold, Trick Flow upper plenum (TFS-51800001), and Trick Flow TFX™ 75mm throttle body (TFS-24075).

## Valve Spring Upgrade Kits • Valve Spring Change Accessory Kit • Valve Spring Compressor • Cylinder Head Bolt Kit • Cam Degree and Supplement Kit for Ford 4.6L/5.4L





Originally engineered just for valve spring replacement on Ford 4.6L/5.4L 2V and 4V modular engines, Trick Flow's valve spring change accessory kit now works on all engines. The accessory kit includes a valve seal installer, magnetic pen, and an extended air hose adapter for putting air into the cylinder to keep the valves closed during service.

TFS-90520 Valve spring change accessory kit, universal, each

### Valve Spring Compressor for Ford 4.6L/5.4L 2V/4V

If you work on Ford modular engines, then you need Trick Flow's valve spring compressor. A must for servicing valve springs, retainers, camshafts, and valve seals, this specially made tool can remove the valve springs with the camshafts in the heads—even while they're on the engine.

TFS-90518

Valve spring compressor, Ford 4.6L/5.4L 2V/4V, each

### Cylinder Head Bolt Kit for Ford 4.6L 2V/4V

Keep combustion where it belongs! Trick Flow's high-quality cylinder head bolt kits provide consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. The kit contains all the bolts you need to install a pair of heads, including hardened washers.

TFS-92008

Cylinder head bolt kit, torque-to-yield, each

## Trick Flow by PAC Racing Valve Spring and Valve Spring Upgrade Kits for Ford 4.6L/5.4L 2V

Trick Flow by PAC Racing's 90 lb. valve spring upgrade kit is perfect for mildly modified Ford modular engines using OEM Ford 2V heads. The kit includes .940"/1.050" o.d. Pacaloy™ beehive valve springs with a 209 lb. spring rate (90 lbs. seat pressure at 1.600" installed height) and maximum lift rating of .600", plus chromoly retainers, locks, seals, and instructions.

The Trick Flow by PAC Racing 125 lb. spring upgrade kit is recommended for engines with power adders and/or other high RPM applications. It includes 1.000"/1.600", 275 lb. Pacaloy beehive springs (125 lbs. seat pressure at 1.600" installed height) with a maximum lift rating of .580" and chromoly retainers, locks, seals, and instructions. This kit is intended for use with OEM Ford 2V heads or Trick Flow Twisted Wedge® 185 cylinder heads.

The Trick Flow by PAC Racing 150 lb. valve spring upgrade kit is designed for extreme performance applications—"big bore" builds, superchargers and turbos, high compression E85, big shot nitrous oxide, and other high power combinations. With this kit you receive sixteen 1.100" diameter Pacaloy dual valve springs with a 233 lb. spring rate (150 lbs. seat pressure at 1.500" installed height) for use with cams up to .650" valve lift, chromoly retainers, locks, seals, and instructions. This kit is intended to convert Trick Flow Twisted Wedge/Track Heat\* 185 cylinder heads with 90/125 lb. valve springs to Twisted Wedge Track Heat 185 with 150 lb. dual springs specifications.

TFS-2500500 90 lb. valve spring upgrade kit, fits one pair of OEM Ford 4.6L/5.4L 2V cylinder heads, each

TFS-2500525 125 lb. valve spring upgrade kit, fits one pair of OEM Ford 4.6L/5.4L 2V or Trick Flow Twisted Wedge 185 cylinder heads, each

TFS-2500526 150 lb. valve spring upgrade kit, upgrades one pair of Trick Flow Twisted Wedge/Track Heat cylinder heads with 90/125 lb. springs to Twisted Wedge Track Heat 185 with 150 lb. dual springs

specifications, each



#### **Cam Degree and Supplement Kits**

Trick Flow's camshaft degree kit will help dial in a camshaft accurately. In addition, the degree kit can be used to check piston-to-valve clearance, flywheel runout, crankshaft endplay, and ring gear backlash. The kit includes two low-tension checking springs, wire pointer, top dead center stop, 11" black degree wheel with laser-etched marks and a 1" diameter center hole to accommodate aftermarket crankshaft sockets, three adapter bushings (3/8", 7/16", and 1/2"), flat washer, magnetic base, dial indicator, and a carrying case.

The supplement kit contains components to make degreeing the cam in a vehicle easier: a steel plate for the magnetic base, an Allen key, adjustable set-up lash adjuster, and an extension for the dial indicator is included. The supplement kit only works with the TFS-90000-16 cam degree kit.

TFS-90000-16 TFS-90000-16W TFS-90100 TFS-90100-BASE

TFS-90100-EXT

Cam degree kit, universal fit, each Degree wheel only, universal fit, each

Cam degree supplement kit, Ford 4.6L/5.4L 2V/4V, each Steel plate for magnetic base indicators,

Ford 4.6L/5.4L 2V/4V, each
TFS-90100-BODY Adjustable set-up lash adjuste

Adjustable set-up lash adjuster, Ford 4.6L/5.4L 2V/4V, each Dial indicator extension, 4" long, Ford 4.6L/5.4L 2V/4V, 4-48 male threads, each

#### EFI Intake Manifolds • EFI Fuel Rails • Upper Plenums • Cylinder Head and Intake Gaskets for Ford 4.6L 2V

#### **EFI Intake Manifolds** for Ford 4.6L 2V

Add some ponies to your 4.6L 2V Mustang with a high performance Trick Flow EFI intake manifold. Trick Flow's revolutionary intakes reward you with big increases in performance over more expensive manifolds!

StreetBurner intake manifolds are designed for mildly modified engines and feature 13.300" long small cross section runners to improve performance from 2.500 to 7.000 RPM. Track Heat intakes are recommended for hot street and track-ready vehicles and feature shorter, 11.000" long large cross section runners to build power in the 3,500 to 8,000 plus RPM operating range.

Other power-building characteristics include symmetrical high-velocity intake ports and throttle body inlets, which work together to substantially increase airflow and distribute it evenly to the cylinders. Plus, the intakes are made from durable A319 aluminum so they're safe to use with nitrous oxide. And don't worry about hood clearance—these intakes are a direct bolt-on replacement for stock and will fit under the hood of all 1999-2004 Mustangs.

The upper and lower intake manifolds are also available separately.

#### NOTES:

- · Works with stock and aftermarket fuel rails.
- Will work on 1996-98 Ford 4.6L 2V with modifications.

#### StreetBurner® Intake Manifold Kits

TFS-51800000 StreetBurner manifold kit, 75mm throttle body inlet, silver, each TFS-51811000 StreetBurner manifold kit, 75mm throttle body inlet, black, each TFS-518B0000 StreetBurner manifold kit, 75mm throttle body inlet, natural, each



TFS-51800002 Track Heat manifold kit, 75mm throttle body inlet, silver, each TFS-51811002 Track Heat manifold kit, 75mm throttle body inlet, black, each TFS-518B0002 Track Heat manifold kit, 75mm throttle body inlet, natural, each TFS-51800003 Track Heat manifold kit, dual 57mm throttle body inlet, silver, each

TFS-51811003 Track Heat manifold kit, dual 57mm throttle body inlet, black, each TFS-518B0003 Track Heat manifold kit, dual 57mm throttle body inlet, natural, each

#### TFX™ EFI Fuel Rails

TFS-5188000R EFI fuel rails, 1999-2004 4.6L 2V, pair

EFI Intake Manifold Specifications for Ford 4.6L 2V					
Manifold	Track Heat w/Dual Throttle Body Inlets				
Engine Size	4.6L 2V	4.6L 2V	4.6L 2V		
Runner	Small cross section with 13.300" runner	Large cross section with 11.000" runner	Large cross section with 11.000" runner		
RPM Range	2,500-7,000	3,500-8,000	3,500-8,000		
Throttle Body Inlet	75mm	75mm	Dual 57mm (Bullitt)		
Port Size at Head	Size at Head OE PI 1.700" x 2.000"		OE PI 1.700" x 2.000"		
Port Size at Plenum	1.750" x 1.750"	1.750" x 2.900"	1.750" x 2.900"		
Overall Height to Mounting Flange	7.800"	7.800"	8.300"		

CARB



#### **High-Flow Upper Plenums** for Ford 4.6L 2V



More horsepower starts with more air—as much as 100 cfm of additional air over stock with an emissions-legal Trick Flow high-flow upper plenum (CARB E.O. #D-369-5). Made for 1996-2004 4.6L 2V powered Ford cars and trucks, the aluminum plenums have been raised 3/4" to enhance airflow yet still fit under a stock hood. They work with stock sensors, are compatible with throttle bodies up to 75mm, and come in silver, black, and natural finishes.

TFS-51800001 Plenum, fits 1996-2004 Mustang, silver, each TFS-51811001 Plenum, fits 1996-2004 Mustang, black, each TFS-518B0001 Plenum, fits 1996-2004 Mustang, natural, each



### for Ford 4.6L/5.4L 2V

Trick Flow premium quality gaskets complement Trick Flow cylinder heads and intakes. The gaskets are constructed from the highest quality materials for superior sealing under under extreme pressure and heat.

Intake gaskets, PI-style, aluminum intake manifolds only, TFS-51800921 Ford 4.6L/5.4L 2V, pair

TFS-51800922 Intake gaskets, PI-style, aluminum or OE composite intake manifolds, Ford 4.6L/5.4L 2V, pair

TFS-5180901L MLS head gasket, Ford 4.6L/5.4L 2V, 3.630" bore, left, each TFS-5180901R MLS head gasket, Ford 4.6L/5.4L 2V, 3.630" bore, right, each





Trick Flow PowerPort Cleveland 195 and 225 cylinder heads feature runners based on the OE Ford 2V design. The exhaust runners are raised .100" from the stock location to improve the short turn radius and dramatically improve exhaust flow, and a revised oil return system improves oil drain back and includes provisions for mating with Ford 351W blocks.

PowerPort 195 heads feature CNC Street Ported runners that are CNC-machined with a standard resolution surface finish—perfect for mild-to-moderate performance applications. The PowerPort 225 heads feature fully CNC Competition Ported runners with a premium high resolution surface finish for maximum, all-out performance.

PowerPort Cleveland series heads fit Ford 351C, 351M, and 400 engines out of the box. With minor machining, the heads also fit Ford 302/351W blocks to create a "replica" Boss 302 or a 351 "Clevor" engine.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

#### **Specifications**

Material: A356-T61 aluminum Combustion Chamber Volume: C00: 62cc/72cc CNC-profiled C01: 60cc CNC-profiled

C11: 72cc CNC-profiled C00: 195cc CNC Street Ported C01/C11: 225cc

**CNC** Competition Ported

Intake Port Location: Stock Intake Port Dimensions:

Intake Port Volume:

Valve Seals:

C00: 1.470" x 2.100" C01/C11: 1.500" x 2.100" TFS-51600921

Intake Gaskets: 2.080" (TFS-51600211) Ductile iron (TFS-51600271) C00: 115cc CNC Street Ported Intake Valve Diameter: Intake Valve Seat: Exhaust Port Volume: C01/C11: 115cc

CNC Competition Ported Raised .100" from OE 2V

**Exhaust Port Location:** 1.480" x 1.560" Fel-Pro 1430 Exhaust Port Dimensions: **Exhaust Gaskets:** 1.600" (TFS-51600212) Ductile iron (TFS-51700272) Exhaust Valve Diameter: Exhaust Valve Seat: Intake 9.5° x 4.25°, exhaust 9.5° x 3° Bronze alloy (intake TFS-51600251, Valve Angles: Valve Guide Material:

exhaust TFS-51600252) Viton® fluoroelastomer (TFS-30400454)

45° x multi-angle

Valve Seat Angles: 45° x 1 Valve Spring Pocket Diameter: 1.615"

1.480" (TFS-51400434) 1.550" (TFS-21400440) Valve Spring Cups Valve Spring I.D. Locators:

Valve Spring Retainers: 7° x 1.500" o.d. chromoly steel (TFS-51400423) 10° x 1.550" o.d. chromoly steel (TFS-21400425)

10° x 1.550" o.d. titanium (TFS-214T0520) 7° machined steel (TFS-51400444)

Valve Stem Locks: 10° machined steel with lash cap recess

(TFS-52400444)

Valve Springs, Standard: 1.460" o.d. dual spring (TFS-16893-16)

120 lbs. @ 1.900" installed height 394 lbs. @ 1.175" open 390 lbs. per inch rate

.650" maximum valve lift Valve Springs, Option 1: 1.550" o.d. dual spring with damper

(TFS-16094-16)

138 lbs. @ 1.950" installed height 430 lbs. @ 1.250" open

420 lbs. per inch rate .680" maximum valve lift

1.560" o.d. dual spring with damper (TFS-16318-16) Valve Springs, Option 2:

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open

500 lbs. per inch rate .700" maximum valve lift 5/16" (TFS-51600623)

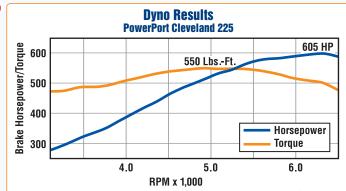
Guideplates: 3/8" (TFS-51600624)

7/16" (TFS-51400614) Rocker Arm Studs:

TFS-53400621 (1.7 rátio, 7/16" studs) Rocker Arms: 4.000"

Minimum Bore Diameter: ARP 154-3604 Cylinder Head Bolts: TFS-51694100-040 Head Gaskets: Pushrod Length: Longer than stock required Spark Plugs: Autolite 3924

Viton® is a registered trademark of DuPont Performance Elastomers.



**Test Engine:** 10.72:1 compression 427 c.i.d. with Trick Flow Flow PowerPort® Cleveland 225 cylinder heads (TFS-5161T004-C01), Trick Flow Track Max® hydraulic roller camshaft (TFS-51403003), Trick Flow 1.73 ratio roller rocker arms (TFS-53400621),Trick Flow Track Heat® intake manifold, Holley Ultra HP 950 cfm carburetor, headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers.

#### PowerPort Cleveland 195 Heads, CNC Street Ported Runners, 195cc Intake Runners, Assembled

TFS-51616203-C00 62cc combustion chambers and 1.460" dual valve springs TFS-51616204-C00 62cc combustion chambers and 1.550" dual valve springs TFS-5161T625-C00 62cc combustion chambers, 1.560" dual valve springs, and titanium retainers TFS-51617203-C00 72cc combustion chambers and 1.460" dual valve springs TFS-51617204-C00 72cc combustion chambers and 1.550" dual valve springs

TFS-5161T725-C00 72cc combustion chambers, 1.560" dual valve springs, and titanium retainers

#### PowerPort Cleveland 225 Heads, CNC Competition Ported Runners and Titanium Retainers, 225cc Intake Runners, Assembled

60cc combustion chambers, 1.460" dual valve springs TFS-5161T003-C01 TFS-5161T004-C01 60cc combustion chambers, 1.550" dual valve springs TFS-5161T005-C01 60cc combustion chambers, 1.560" dual valve springs TFS-5161T003-C11 72cc combustion chambers, 1.460" dual valve springs TFS-5161T004-C11 72cc combustion chambers, 1.550" dual valve springs TFS-5161T005-C11 72cc combustion chambers, 1.560" dual valve springs

Airflow Results PowerPort Cleveland 195				
Lift Value Intake Flow CFM Exhaust Flow CFM				
.100"	68	55		
.200"	140	111		
.300"	202	155		
.400"	254	193		
.500"	289	221		
.600"	313	236		
Tests conducted at 28" of water (pressure). Bore size: 4.030"; exhaust with 1½" pipe.				

#### **EFI Intake Manifold Kits** for Ford 351C and Clevor

Trick Flow aluminum EFI intake manifold kits for Ford 351C and 351 Windsor-based Clevor-style engines are computer-modeled and tested to deliver excellent air/fuel distribution and velocity for increased horsepower and torque.

The runner lengths and cross-sectional taper of the R-Series intakes are tuned for engines that operate in the 2,500 to 7,250 RPM range. Box-R-Series intakes feature a large plenum/short runner design that maximizes mid-to-high-RPM power and torque, making it ideal for supercharged, turbocharged, nitrous, and racing applications that produce power in the 3,000 to 8,000 RPM range. The manifolds will work with all 2V and 4V applications. All 9.200" deck height manifolds fit standard Cleveland engine blocks; 9.500" deck height manifolds fit standard 351W-based engine blocks.

All EFI manifold uppers are available in silver and black powdercoated finishes or natural aluminum for those who prefer a natural look or wish to use a custom finish.

- · These EFI manifolds are designed for non-EGR engines.
- Engines will require a calibrated mass air or adjustable fuel injection computer, aftermarket fuel rails, and adjustable fuel pressure regulator to operate properly.
- · All manifold lowers have a natural aluminum finish.

#### **R-Series Intake Manifold Kits**

n-series illiake	Mailliola Kits
TFS-51600114	R-Series manifold kit, Ford 351C, 9.200" deck height, 75mm throttle body inlet, silver upper, each
TFS-51600115	R-Series manifold kit, Clevor, 9.500" deck height, 75mm throttle body inlet, silver upper, each
TFS-51611114	R-Series manifold kit, Ford 351C, 9.200" deck height, 75mm throttle body inlet, black upper, each
TFS-51611115	R-Series manifold kit, Clevor, 9.500° deck height, 75mm throttle body inlet, black upper, each
TFS-516B0114	R-Series manifold kit, Ford 351C, 9.200" deck height, 75mm throttle body inlet, natural upper, each
TFS-516B0115	R-Series manifold kit, Clevor, 9.500" deck height, 75mm throttle body inlet, natural upper, each
TFS-51600116	R-Series manifold kit, Ford 351C, 9.200" deck height, 90mm throttle body inlet, silver upper, each
TFS-51600117	R-Series manifold kit, Clevor, 9.500" deck height, 90mm throttle body inlet, silver upper, each
TFS-51611116	R-Series manifold kit, Ford 351C, 9.200" deck height, 90mm throttle body inlet, black upper, each
TFS-51611117	R-Series manifold kit, Clevor, 9.500" deck height, 90mm throttle body inlet, black upper, each
TFS-516B0116	R-Series manifold kit, Ford 351C, 9.200" deck height, 90mm throttle body inlet, natural upper, each
TFS-516B0117	R-Series manifold kit, Clevor, 9.500" deck height, 90mm throttle body inlet, natural upper, each

itake Manifold Kits
Box-R-Series manifold kit, Ford 351C, 9.200" deck
height, 90mm throttle body inlet, silver upper, each
Box-R-Series manifold kit, Clevor, 9.500" deck height,
90mm throttle body inlet, silver upper, each
Box-R-Series manifold kit, Ford 351C, 9.200" deck
height, 90mm throttle body inlet, black upper, each
Box-R-Series manifold kit, Clevor, 9.500" deck height,
90mm throttle body inlet, black upper, each
Box-R-Series manifold kit, Ford 351C, 9.200" deck
height, 90mm throttle body inlet, natural upper, each
Box-R-Series manifold kit, Clevor, 9.500" deck height,
90mm throttle body inlet, natural upper, each

#### PCV Valve, Grommet, and Filter Kit

TFS-51500810 PCV valve, grommet and filter kit, screen-type filter, each



EFI Intake Manifold Specifications for Ford 351C and Clevor						
Manifold	R-Series	Box-R-Series				
Runner	Large cross-section with 13.300" runner	Large cross-section with 11.000" runner				
RPM Range	1,500-5,500/2,500-7,500	2,500-7,500				
Throttle Body Inlet	75mm/90mm	90mm				
Port Size at Head	2.100" x 1.500"	2.100" x 1.500"				
Port Size at Mating Flange	2.380" x 1.380"	2.380" x 1.380"				
Overall Height to Upper Manifold Flange	12.250"	13.650"				
Overall Height to Lower Manifold Flange	5.960"	5.960"				



### for Ford 351C and Clevor

The Track Heat single plane intake manifolds for Ford 351C and Windsorbased Clevor-style engines are designed for applications that operate in the 3,000-7,000 RPM range. The high-rise, one-piece spider design features high-flowing individual extended runners that provide significant horsepower and torque increases in the mid- to high-RPM range and a raised plenum floor for increased flow velocity and fuel atomization.

Other important features include OE 2V port locations and dimensions, A319 aluminum construction, integral bosses for nitrous or fuel injection nozzles, extra material for custom port work, and a Holley 4150-style carburetor mounting pad. Plus, the manifolds will work with all 2V and 4V applications. Overall height to the carburetor mounting pad for TFS-51600111 is 6.250". Overall mounting pad heights for TFS-51600112 and TFS-51600113 is 6.625".

Manifold, Ford 351C, 9.200" deck height, factory Cleveland TFS-51600111

engine blocks, each

Manifold, Ford Clevor, 9.500" deck height, factory TFS-51600112

Windsor engine blocks, each

TFS-51600113 Manifold, Ford Clevor, 9,200" deck height. aftermarket Windsor engine blocks, each TFS-516INTBK-92 Manifold bolt kit, fits 9.200" and 9.500" deck

height blocks, each





#### **Cast Aluminum Valve Covers** for Ford 351C, 351M/400, and Clevor

Made from durable A319 aluminum. Trick Flow cast aluminum valve covers are much less prone to flex and distortion than stamped steel covers, which helps prevent oil leaks. These covers have a tall height to clear rocker stud girdles and roller rockers and can be drilled to accept breathers.

TFS-51600802 Valve covers, silver, pair TFS-51611802 TFS-5160B802 TFS-25200804

Valve covers, black, pair USA Valve covers, natural, pair Hardware kit, includes twelve 1/4"-20 x 1.500" studs. four 1/4"-20 x 4.500" bolts, sixteen flat washers,

and twelve nyloc nuts



These aluminum roller rockers are excellent for use with Trick Flow heads. They can also be used on factory Ford 351C and 351M/400 heads. They feature heat-treated CNCmachined bodies, premium needlebearing fulcrums, roller tips, and a machined relief for improved valve

spring clearance. Trick Flow roller rockers are sold in sets of 16 and come complete with polylocks.

Rocker arms, 1.73 ratio, 7/16" stud, set of 16



#### **Rocker Stud Girdles** for Ford 351C

These CNC-machined stud girdles help control valve lift and timing changes due to stud flex, allowing for more consistent high-RPM performance. Each stud girdle is anodized blue and comes with high-quality mounting hardware and hardened adjusting nuts. Tall-style valve covers are required.

TFS-51600700

Rocker stud girdles, 7/16", pair

#### Throttle Cable **Bracket Kits** for Ford 351C and Clevor **EFI Intake Manifolds**



Our Trick Flow throttle cable bracket kits provide a place to mount throttle cables on EFI-equipped Ford 351C and Clevor engines. They work with 75mm and 90mm EFI manifolds without EGR plates and feature a clear anodized finish. Includes gaskets and mounting hardware.

TFS-51500075 TFS-51500090 Throttle cable bracket kit, 75mm manifolds, each Throttle cable bracket kit, 90mm manifolds, each



#### **TFX™ EFI Fuel Rails** for Ford 351C and Clevor

These TFX billet fuel rails from Trick Flow were developed to allow owners of high performance Ford 351C and Clevor powered vehicles to build custom fuel systems. Includes specially constructed mounting brackets to keep the fuel rails tucked in close to the engine to prevent hood and intake manifold interference.

TFS-5158000R EFI fuel rails, pair



Trick Flow's coolant crossover kit allows you to mate the cooling passages of our PowerPort® Cleveland cylinder heads with a Ford Windsor block to complete a Clevor conversion. The crossover kit replaces the water passage and thermostat housing on a factory Windsor intake manifold with one that redirects the coolant out the front of the cylinder heads and moves the thermostat housing horizontally above the original Windsor location. Includes housing, fittings, hose, hose clamps, and mounting studs.

TFS-51600600

Clevor water crossover kit, each

#### **Trick Flow by Wiseco PowerPort® Forged Piston Sets for Ford Clevor**

Trick Flow's lightweight forged pistons are fully skirted and precision-machined from premium aluminum alloy to fit Ford Windsor engine blocks with Ford 351C-type cylinder heads. They feature oversized valve reliefs, precision-fit wrist pins, and Spirolox retainers.

The pistons are available with a choice of compression ratios. All pistons use ring sets with a 1/16" top ring, 1/16" second ring, and 3/16" oil control ring. Sold in sets of 8.

NOTE: Compression ratios for part numbers TFS-51604330 and TFS-51604331 are based on 62cc combustion chamber heads; part numbers TFS-51604330-125 and TFS-51604331-125 are based on 72cc combustion chamber heads.



TFS-51604331	

	Specifications							
Part Numbers	Engine Size	Bore	Stroke	Rod	Comp. Height	Comp. Ratio	Pin Dia.	Rings
TFS-51604330	408 (351W)	4.030"	4.000"	6.250"	1.235"	12.0:1	.927"	1/16", 1/16", 3/16"
TFS-51604330-125	427 (351W)	4.125"	4.000"	6.250"	1.235"	11.0:1	.927"	1/16", 1/16", 3/16"
TFS-51604331	408 (351W)	4.030"	4.000"	6.250"	1.235"	9.8:1	.927"	1/16", 1/16", 3/16"
TFS-51604331-125	427 (351W)	4.125"	4.000"	6.250"	1.235"	9.3:1	.927"	1/16", 1/16", 3/16"

Twisted Wedge® 170 Cylinder Heads for Small Block Ford

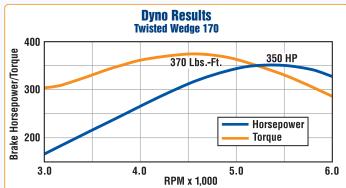
Trick Flow's legendary Twisted Wedge 170 series cylinder heads are better than ever!

The A356-T61 aluminum castings have been redesigned on the exhaust side to improve strength and water jacket integrity for durability.

All of the unique features that made Twisted Wedge series heads so dominant in high performance and racing are still here—Twisted Wedge combustion chambers and valve layout, high-flow/high-velocity intake runners, and top-quality valvetrain components—plus CNC-profiled combustion chambers with port-to-valve seat blending (bowl blending) and refined Fast As Cast® runners that deliver near-CNC-ported power and airflow at cast head prices.

Certain Twisted Wedge 170 heads are emissions-legal under CARB E.O. #D-747-1 for 1996 and earlier Ford 289, 302, and 351W engines.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 9.5:1 compression 306 c.i.d. with Trick Flow Twisted Wedge 170 cylinder heads (TFS-51410004-M61), Trick Flow Track Max® hydraulic roller camshaft (TFS-51403001), Trick Flow StreetBurner® EFI intake manifold (TFS-51500001), Trick Flow TFX™ 70mm throttle body (TFS-24070), Trick Flow TFX™ 24 lb./hr. fuel injectors (TES-89024), Hooker Competition headers with 13/4" primaries, 3" dual exhaust with Flowmaster mufflers.

#### Twisted Wedge 170 Heads, Emissions Legal, Fast As Cast Runners, Assembled

TFS-51410002-M58 58cc combustion chambers and 1.470" single valve springs, 170cc intake runners

TFS-51410002-M61 61cc combustion chambers and 1.470" single valve

springs, 170cc intake runners

TFS-51410004-M58 58cc combustion chambers and 1.460" dual valve

springs, 170cc intake runners

61cc combustion chambers and 1.460" dual valve springs, TFS-51410004-M61

170cc intake runners

#### Twisted Wedge 170 Heads, Non-Emissions, Fast As Cast Runners, **Assembled**

TFS-51410010-M58 58cc combustion chambers and 1.460" dual valve springs, 170cc intake runners

TFS-51410010-M61 61cc combustion chambers and 1.460" dual valve springs, 170cc intake runners

Airflow Results Twisted Wedge 170					
Lift Value Intake Flow CFM Exhaust Flow CFM					
.100"	63	53			
.200"	141	107			
.300"	205	144			
.400"	241	171			
.500"	257	187			
.600"	257	193			
Tacta conducted at 20" of water (pressure), Pore cize: 4.020"					

Tests conducted at 28" of water (pressure). Bore size: 4.030 61cc CNC-profiled combustion chambers; exhaust with 13/4" pipe.

#### **Specifications**

TFS-51410004-M61

A356-T61 Aluminum Material: Combustion Chamber Volume: M58: 58cc CNC-profiled M61: 61cc CNC-profiled Intake Port Volume: 170cc Fast As Cast

Intake Port Location: Stock 1.200" x 2.000" Intake Port Dimensions:

Intake Gaskets: Fel-Pro 1250 Intake Valve Diameter: 2.020" (TFS-51400211)

Intake Valve Seat: Ductile iron (TFS-51400271) Exhaust Port Volume: 66cc Fast As Cast

Exhaust Port Location: Stock

CARB

Exempt

**Exhaust Port Dimensions:** 1.250" x 1.500" Exhaust Gaskets: Fel-Pro 1415

Exhaust Valve Diameter: 1.600" (TFS-51400212) Exhaust Valve Seat: Ductile iron (TFS-51400272-1) Intake 15°, exhaust 17° Valve Angles: Valve Guide Material:

Bronze alloy (TFS-51400252) Viton® fluoroelastomer (TFS-30400454) Valve Seals:

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.615"

Valve Spring Cups: 1.480" (TFS-51400434)

7° x 1.500" o.d. chromoly steel (TFS-51400423) Valve Spring Retainers: 10° x 1.500" o.d. chromoly steel (TFS-21400424) 7° machined steel (TFS-51400444) Valve Stem Locks:

10° machined steel with lash cap recess

(TFS-52400444)

1.470" o.d. single spring with damper (TFS-16514-16) Valve Springs: Standard

118 lbs. @ 1.800" installed height

305 lbs. @ 1.260" open

360 lbs. per inch rate .540" maximum valve lift

Valve Springs: Optional 1.460" o.d. dual spring with damper

(TFS-16315-16)

134 lbs. @ 1.800" installed height

405 lbs. @ 1.200" open 452 lbs. per inch rate .600" maximum valve lift

Guideplates: 5/16" (TFS-51400623) 3/8" (TFS-51400624) Rocker Arm Studs: 02/04: 3/8" (TFS-51400613)

10: 7/16" (TFS-51400614) TFS-51400510 (1.6 ratio, 3/8" studs) Rocker Arms

TFS-51400511 (1.72 ratio, 3/8" studs) TFS-51400520 (1.6 ratio, 7/16" studs) TFS-51400521 (1.72 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" Cylinder Head Bolts: TFS-92005

TFS-51494030-040 or TFS-51494060-040 Head Gaskets:

Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3924

NOTES: Valve cover rail is raised .350" over stock height.

61cc combustion chamber heads work with stock pistons and

performance camshafts up to .550" lift.

58cc combustion chamber heads require Twisted Wedge specific

pistons for proper piston-to-valve clearance.

Viton® is a registered trademark of DuPont Performance Elastomers.





Trick Flow took its track-proven Twisted Wedge design and, using advanced 3D solid modeling and CAD tools, plus a couple decade's worth of racing experience,

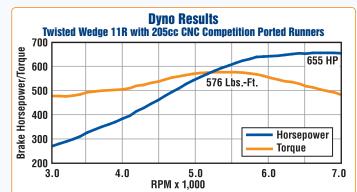
made it even more potent for serious performance enthusiasts and racers.

Trick Flow's Twisted Wedge 11R cylinder heads feature 11° intake and 13° exhaust valve angles and a restructured combustion chamber arrangement for more airflow and performance potential than original Twisted Wedge heads. The high velocity, race-inspired runners have been optimized for today's popular bore and stroke combinations. Premium certified materials and components, along with the finest CNC tooling, are used to ensure uncompromising quality and durability, dimensional

accuracy, and balanced flow from port-to-port. Fully machined castings increase strength and have a great-looking billet-like appearance.

Twisted Wedge 11R 170 and 190 heads with CNC Street Ported runners are great entry-level CNC heads combining fully CNC-machined runners and combustion chambers with a standard resolution surface finish for significant performance gains. Twisted Wedge 11R 190 and 205 heads with CNC Competition Ported runners feature fully CNC-machined runners and chambers with a premium high resolution finish for ultimate performance.

Twisted Wedge 11R heads are for use on non-emissions engines. The heads are a direct replacement for previous Twisted Wedge heads and work with all Twisted Wedge specific pistons. Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 11.59:1 compression 427 c.i.d. with Trick Flow Twisted Wedge® 11R 205 cylinder heads (TFS-52615601-C03), Trick Flow Track Max® hydraulic roller camshaft (TFS-51403005), 1.72 ratio roller rocker arms, Edelbrock Super Victor intake manifold, Hooker headers with 11/8 primaries, 3" dual exhaust with Flowmaster mufflers.

#### Twisted Wedge 11R 170 Cylinder Heads, CNC Street Ported Runners, Assembled

TFS-52515301-C00 53cc combustion chambers, 170cc intake runners TFS-52516301-C00 63cc combustion chambers, 170cc intake runners

#### Twisted Wedge 11R 190 Cylinder Heads, CNC Street Ported Runners, Assembled

TFS-52515601-C01 56cc combustion chambers, 190cc intake runners TFS-52516601-C01 66cc combustion chambers, 190cc intake runners

#### Twisted Wedge 11R 190 Cylinder Heads, CNC Competition Ported Runners, Assembled

TFS-52615601-C02 56cc combustion chambers, 190cc intake runners TFS-5261T561-C02 56cc combustion chambers and titanium retainers. 190cc intake runners

TFS-52616601-C02 66cc combustion chambers, 190cc intake runners 66cc combustion chambers and titanium retainers. TFS-5261T661-C02 190cc intake runners

#### Twisted Wedge 11R 205 Cylinder Heads, CNC Competition Ported Runners, Assembled

TFS-52615601-C03 56cc combustion chambers, 205cc intake runners TFS-5261T561-C03 56cc combustion chambers and titanium retainers, 205cc intake runners TFS-52616601-C03 66cc combustion chambers, 205cc intake runners TFS-5261T661-C03 66cc combustion chambers and titanium retainers. 205cc intake runners

**Specifications** 

TFS-5261T661-C03

A-356-T61 aluminum Material:

Combustion Chamber Volume: 5301-C00: 53cc CNC-profiled 5601-C01/C02: T-561-C02/C03:

56cc CNC-profiled 6301-C00: 63cc CNC-profiled 6601-C01/C03; T661-C02/C03: 66cc CNC-profiled

Intake Port Volume: C00: 170cc CNC Street Ported C01: 190cc CNC Street Ported C02: 190cc CNC Competition Ported

C03: 205cc CNC Competition Ported

Intake Port Location: Stock Intake Port Dimensions: C00: 2.000" x 1.200"

Intake Gaskets:

Guideplates:

Intake Valve Diameter:

C01/C02: 2.100" x 1.280" C03: 2.250" x 1.400" C00: Fel-Pro 1250

C01/C02: Fel-Pro 1262

C01/C02. FeI-Pro 1262 C03: FeI-Pro 1262R or TFS-52400921 C00: 2.020" (TFS-52500211) C01/C02: 2.055" (TFS-52500213) C03: 2.080" (TFS-52500215) Ductile iron (TFS-52500271)

Intake Valve Seat: C00/C01: 66cc CNC Street Ported Exhaust Port Volume: C02/C03: 66cc CNC Competition Ported

**Exhaust Port Location:** Stock **Exhaust Port Dimensions:** 

1.250" x 1.480" Fel-Pro 1415 or TFS-51490931 1.600" (TFS-52500212) Exhaust Gaskets: Exhaust Valve Diameter: Exhaust Valve Seat: Ductile iron (TFS-30600274) 11° intake, 13° exhaust Valve Angles: Bronze alloy (TFS-52500251) Valve Guide Material:

Viton® fluoroelastomer (TFS-30600455) Valve Seals:

45° x multi angle

Valve Seat Angles: 45° x r Valve Spring Pocket Diameter: 1.640" Valve Spring I.D. Locators: 1.300"

1.300" (TFS-21400442)

7° x 1.300" o.d. chromoly steel (TFS-21400415) 7° x 1.300" o.d. titanium (TFS-214T0415) Valve Spring Retainers:

Valve Stem Locks: 7° steel bead lock (TFS-30600444) Valve Springs: 1.275" o.d. dual spring (TFS-16306-16)

150 lbs. @ 1.800" installed height 420 lbs. @ 1.200" open

450 lbs. per inch rate .600" max. valve lift 5/16" (TFS-51400623) 3/8" (TFS-51400624)

7/16" (TFS-51400614) Rocker Arm Studs: TFS-51400520 (1.6 ratio, 7/16" studs) Rocker Arms: TFS-51400521 (1.72 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" Cylinder Head Bolts: TFS-92005

Head Gaskets: TFS-51494030-040 or TFS-51494060-040

Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3924

Drilled for 1/2" head bolts; 7/16" head bolts NOTE: require TFS-51400419 reducer

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#### **Airflow Results** Twisted Wedge® 11R with 205cc CNC Competition Ported Runners

	• • • • • • • • • • • • • • • • • • • •			
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	71	60		
.200"	140	111		
.300"	208	150		
.400"	261	185		
.500"	298	212		
.600"	321	227		

Tests conducted at 28" of water (pressure). Bore size: 4.030' 66cc CNC-profiled combustion chambers; exhaust with 13/4" pipe

Trick Flow's Twisted Wedge Race 206 heads feature fully CNC-profiled Twisted Wedge combustion chambers and valve arrangement with port-to-valve seat blending (bowl blending), plus .500" raised exhaust runners, and raised valve cover rails. Fast As Cast® runners deliver near-CNC-ported airflow and power for about the same price as cast heads.

for Small Block Ford

Twisted Wedge® Race 206 and 225 Cylinder Heads

The Twisted Wedge Race 225 heads have all of the features of the Race 206 heads but come with top-of-the-line CNC Competition Ported runners with a high resolution surface finish for maximum airflow and power over the entire powerband.

Twisted Wedge Race heads have additional material for porting, thick decks and chamber walls for durability, intake port shaping for Fel-Pro #1262 gaskets, stud mounts for roller rocker arms, and huge valve spring pockets.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Test Engine: 10.59:1 compression 408 c.i.d. with Trick Flow Twisted Wedge® Race 225 cylinder heads (TFS-5240T005-C01), COMP Cams Xtreme Energy mechanical roller camshaft (254\*7260\* duration @.050\*; 621\*/.627\* lift; 110\* lobe separation), Trick Flow 1.6 ratio roller rocker arms (TFS-51400520), Edelbrock Super Victor intake manifold, Hooker headers with 1½\* primaries, open exhaust.

Twisted Wedge Rad	ce 206 Heads, Fast As Cast Runners, Assembled
TFS-52410003-M61	1.550" dual valve springs, 206cc intake runners
TFS-52410004-M61	1.550" dual valve springs and O-rings, 206cc intake runners
TFS-52410005-M61	1.560" dual valve springs, 206cc intake runners
TFS-5241T005-M61	1.560" dual valve springs and titanium retainers,
	206cc intake runners
TFS-52410006-M61	1.560" dual valve springs and O-rings, 206cc intake runners
TFS-5241T006-M61	1.560" dual valve springs, O-rings, and titanium retainers,
	206cc intake runners
TFS-5241T805-M61	1.640" dual valve springs and titanium retainers,
	206cc intake runners
Turistad Wades Des	- OOF Heads ONO Commetition Dowled

#### Twisted Wedge Race 225 Heads, CNC Competition Ported Runners. Assembled

TFS-52410003-C01	1.550" dual valve springs, 225cc intake runners
TFS-52410005-C01	1.560" dual valve springs, 225cc intake runners
TFS-5241T005-C01	1.560" dual valve springs and titanium retainers,
	225cc intake runners
TFS-5241T805-C01	1.640" dual valve springs and titanium retainers.

225cc intake runners

Airflow Results Twisted Wedge Race 225				
Lift Value	Exhaust Flow CFM			
.100"	67	59		
.200"	141	116		
.300"	213	159		
.400"	270	205		
.500"	308	244		
.600"	331	259		
.700"	341	271		

Tests conducted at 28" of water (pressure). Bore size: 4.125"; exhaust with 2" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.



TFS-52410003-C01

A356-T61 aluminum M61: 61cc CNC-profiled Material: Combustion Chamber Volume: C01: 65cc CNC-profiled M61: 206cc Fast As Cast C01: 225cc CNC Competition Ported Intake Port Volume:

Intake Port Location: Stock M61: 1.375" x 2.125' Intake Port Dimensions: C01: 1.375" x 2.240" M61: Fel-Pro 1262 Intake Gaskets:

C01: Fel-Pro 1262R Intake Valve Diameter: 2.080" (TFS-52400217) Intake Valve Seat: Ductile iron (TFS-52400271)

Exhaust Port Volume: M61: 92cc Fast As Cast C01: 100cc CNC Competition Ported

**Exhaust Port Location:** Raised .500" from stock Exhaust Port Dimensions: 1.510" x 1.660" oval Exhaust Gaskets: Fel-Pro 1427 1.600" (TFS-52400212) Exhaust Valve Diameter:

Exhaust Valve Seat: Copper bronze alloy (TFS-52400272) Intake 15°, exhaust 17° Bronze alloy Valve Angles:

Valve Guide Material: (intake TFS-51600251, exhaust TFS-51600252)

Valve Seals: Viton® fluoroelastomer (TFS-30400454)

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.760 Valve Spring I.D. Locators:

1.550" (TFS-21400440), 1.640" (TFS-21400441) 10° x 1.550" o.d. chromoly steel (TFS-21400425) 10° x 1.500" o.d. titanium (TFS-214T0620) Valve Spring Retainers:

10° x 1.550" o.d. titanium (TFS-214T0520) 10° machined steel with lash cap recess Valve Stem Locks:

Valve Springs, Standard:

(TFS-52400444)
1.550° o.d. dual spring with damper (TFS-16094-16)
138 lbs. @ 1.950° installed height 430 lbs. @ 2.250° open 420 lbs. per inch rate

.680" maximum valve lift 1.560" o.d. dual spring with damper Valve Springs, Option 1:

(TFS-16318-16)

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open 500 lbs. per inch rate .720" maximum valve lift

Valve Springs, Option 2: 1.640" o.d. dual spring with damper

(TFS-16414-16)

250 lbs. @ 2.000" installed height

800 lbs. @ 1.150" open 600 lbs. per inch rate .850" maximum valve lift

5/16" (TFS-52400622), 3/8" (TFS-52400624) Guideplates:

Rocker Arm Studs: 7/16" (TFS-51400614) Rocker Arms:

TFS-51400520 (1.6 ratio, 7/16" studs) TFS-51400521 (1.72 ratio, 7/16" studs)

Minimum Bore Diameter: 4.000" Cylinder Head Bolts: TFS-92005

Head Gaskets: TFS-51494060-040, TFS-51494080-040, or

TFS-51494155-040 Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3932 NOTE: Valve cover rail is raised .350" over stock height. Viton® is a registered trademark of DuPont Performance Elastomers.





Intake Port Location: Stock

Intake Port Dimensions: 1.200" x 2.000" Fel-Pro 1250 Intake Gaskets:

2.020" (TFS-51700211) Intake Valve Diameter:

Ductile iron interlock (TFS-51600271) Intake Valve Seat: Exhaust Port Volume: 87cc Fast As Cast

Raised .750" from stock **Exhaust Port Location:** Exhaust Port Dimensions: 1.250" x 1.500"

Fel-Pro 1415 **Exhaust Gaskets:** Exhaust Valve Diameter: 1.600" (TFS-51700212) Exhaust Valve Seat: Ductile iron (TFS-51700272) Valve Angles:

Bronze alloy (TFS-51700252) Valve Guide Material:

Valve Seals: Viton® fluoroelastomer (TFS-30400454)

Valve Seat Angles: 45° x multi-angle Valve Spring Pocket Diameter: 1.615"

Valve Spring Cups: 1.480" (TFS-51400434)

Valve Spring Retainers: 7° x 1.500" o.d. chromoly steel (TFS-31400424)

Valve Stem Locks: 7° machined steel (TFS-51400444) Valve Springs: 1.460" o.d. dual spring with damper (TFS-16315-16)

134 lbs. @ 1.800<sup>#</sup> installed height

405 lbs. @ 1.200" open 452 lbs. per inch rate .600" maximum valve lift

5/16" (TFS-51700623), 3/8" (TFS-51700624) Guideplates:

Rocker Arm Studs: 3/8" (TFS-51400613)

Rocker Arms: TFS-51400510 (1.6 ratio, 3/8" studs) TFS-51400511 (1.72 ratio, 3/8" studs) TFS-51400520 (1.6 ratio, 7/16" studs)

TFS-51400521 (1.72 ratio, 7/16" studs) 4 000"

Minimum Bore Diameter: Cylinder Head Bolts: TFS-92005

Head Gaskets

TFS-51494060-040. TFS-51494080-040. or

TFS-51494155-040 Longer than stock required

Pushrod Lenath: Autolite 3924 Snark Plugs

NOTE: Valve cover rail is raised .400" over stock height. Viton® is a registered trademark of DuPont Performance Elastomers.

#### High Port 192 Head, Fast As Cast Runners, Assembled

TFS-51710001-M64 192cc intake runners

Airflow Results High Port 192				
Lift Value	Intake Flow CFM	Exhaust Flow CFM		
.100"	67	55		
.200"	137	103		
.300"	194	138		
.400"	244	166		
.500"	270	183		
.600"	283	193		
Tests conducted at 28" of water (pressure). Bore size: 4.030"; exhaust with $1^34$ " pipe.				

Trick Flow High Port 192 cylinder heads for small block Ford are one of the most dominant aftermarket heads in racing. They feature unique valve spacing, .750" raised exhaust runners, extra strong castings and thick decks for additional rigidity and gasket integrity, superior cooling characteristics, and most importantly, excellent airflow.

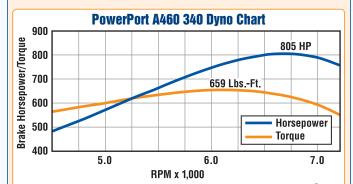
And that's not all. The entry into the intake runner has been reshaped to help seal the area along the port roof and thicker port walls increase strength and provide more material for porting. Plus, interlocking ductile iron seats are used to handle the stresses of high heat, high horsepower applications.

Other features include fully CNC-profiled combustion chambers with port-to-valve seat blending (bowl blending), raised valve cover rails, and large Fast As Cast® runners that duplicate the profiles of CNC-ported heads to create ultra high-flowing heads without costly CNC-porting.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

#### Trick Flow Fast Fact: Peak Power vs. Area Under the Curve

When looking at a graph from an engine or chassis dyno test, the first things most people look for are peak horsepower and torque figures. These numbers are useful for seeing exactly where in the RPM band an engine makes its power, or for judging the effects a particular part or parts combination can have on output. Peak numbers are great for bragging rights, too.



Test Engine: 10.5:1 compression 520 c.i.d. with Trick Flow Flow PowerPort® A460 340 cylinder heads (TFS-5441T801-M87), Crane mechanical roller camshaft (268°/278° duration @ .050°, .718°/.718° lift; 110° lobe separation), Trick Flow 1.73 ratio roller rocker arms (TFS-53400621), Trick Flow R-Series A460 intake manifold (TFS-54400111), Hooker headers with  $2\frac{1}{4}$ " primaries, open exhaust.

But the true measurement of real-world horsepower and torquethe stuff that gets your car moving and keeps it moving—is what's called the area under the curve. In basic terms, area under the curve indicates the overall amount of torque or horsepower an engine makes over its operating range. The wider the power curve is, the more area is underneath it. And more area under the curve means more power is produced over a wider RPM range, not just a particular RPM point or peak.

This principle also applies to cylinder head flowbench data. Peak intake and exhaust flow numbers make great ad copy, but the low and mid-lift flow numbers are just as critical. The area under the curve-in this case the valve lift curve-is the true measure of cylinder head performance.

Take a look at the dyno graph for a 520 cubic inch big block Ford equipped with Trick Flow PowerPort® A460 340 cylinder heads. Notice how smooth and wide the horsepower and torque curves are, and how much area is underneath them. That means this engine pulls like a freight train, and keeps on pulling all the way up to its RPM limit. That's the kind of power that gets respect on the street and wins races at the track—the kind of power Trick Flow products are designed to make!

#### High Port® 225 and 240 Cylinder Heads for Small Block Ford

Trick Flow has developed several fully CNC-ported versions of the High Port cylinder heads specifically for large cubic inch, large power adder, big shot nitrous oxide, and other mega-power combinations.

High Port 225 and 240 cylinder heads for small block Ford have all of the same features of Fast As Cast® High Port heads—unique valve spacing, raised exhaust runners, extra strong castings, thick decks, superior cooling, reshaped intake runner entries, extra material for porting, raised valve cover rails, and excellent airflow—plus top-of-the-line CNC Competition Ported runners with a high resolution surface finish for maximum airflow and power over the entire RPM range.

Cylinder heads are available fully assembled or as bare castings. Sold individually.

Airflow Results						
High Port 2	2 <b>25</b> \	with	<b>70cc</b>	Combustion	Chambers	
						Π

mgn r ort 220 tritil rood dombadtion diambord					
Lift Value	Intake Flow CFM	Exhaust Flow CFM			
.100"	72	58			
.200"	146	117			
.300"	216	162			
.400"	268	210			
.500"	305	234			
.600"	322	247			
.700"	335	257			

Tests conducted at 28" of water (pressure). Bore size: 4.030"; exhaust with 2" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search.

#### High Port 225 Heads, CNC Competition Ported Runners, Assembled

TFS-5171T010-C01 58cc combustion chambers, 1.560" dual valve springs, and titanium retainers, 225cc intake runners 70cc combustion chambers and 1.460" dual valve springs, TFS-51710012-C01 225cc intake runners TFS-5171T012-C01 70cc combustion chambers, 1.460" dual valve springs, and titanium retainers, 225cc intake runners 70cc combustion chambers, 1.550" dual valve springs, and TFS-5171T013-C01 titanium retainers, 225cc intake runners

O-rings, and titanium retainers, 225cc intake runners

High Port 240 Heads, CNC Competition Ported Runners, Assembled

67cc combustion chambers, 1.550" dual valve springs, and TFS-5171T016-C02

titanium retainers, 240cc intake runners

TFS-5171T018-C02 76cc combustion chambers, 1.550" dual valve springs, and

titanium retainers, 240cc intake runners



TFS-5171T014-C01







70cc combustion chambers, 1.550" dual valve springs,

#### **Cylinder Head Bolt Reducer Bushings** for Small Block Ford

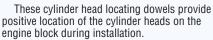
These reducer bushings allow the use of 7/16" head bolts in heads with 1/2" head bolt bores.

TFS-51400419 Head bolt reducer bushings, pack of 20



#### **Locating Dowels** for Small Block Ford





TFS-51400420 Locating dowels,

.650" high x .675" o.d. x 33/64" i.d., pack of 4





10-C01: 58cc CNC-profiled Combustion Chamber Volume:

12-C01/13-C01/14-C01: 70cc CNC-profiled

TFS-5171T010-C01

16-C02: 67cc CNC-profiled 18-C02: 76cc CNC-profiled 10-C01/12-C01/13-C01/14-C01:

Intake Port Volume: 225cc CNC Competition Ported 16-C02/18-C02: 240cc CNC Competition Ported

**Specifications** 

Stock

C01: 1.380" x 2.240", C02: 1.310" x 2.300" Intake Port Dimensions:

Intake Gaskets: Fel-Pro 1262R

Intake Port Location:

Intake Valve Diameter: 2.080" (10-C01: TFS-52400217; 12-CO1/13-CO1/14-CO1: TFS-51700217)

2.100" (16-C02: TFS-52400218; 18-C02: TFS-51700218)

Intake Valve Seat: Ductile iron interlock (TFS-51600271) Exhaust Port Volume: 95cc CNC Competition Ported Raised .750" from stock

**Exhaust Port Location: Exhaust Port Dimensions:** 1.520" x 1.620"

Fel-Pro 1481 for diagonal bolt pattern headers **Exhaust Gaskets:** Fel-Pro 1487 for inline bolt pattern headers

1.600" (10-C01: TFS-51700212; 12-C01/ Exhaust Valve Diameter: 13-C01/14-C01/18-C02: TFS-51700213;

16-C02: TFS-52400212) Ductile iron (TFS-51700272) Exhaust Valve Seat:

Valve Angles:

Valve Guide Material: Bronze alloy (TFS-51700252)

Viton® fluoroelastomer (TFS-30400454) Valve Seals:

Valve Seat Angles: 45° x multi-angle

Valve Spring Pocket Diameter: 1.615

Valve Stem Locks:

Valve Springs

Pushrod Length:

1.480" (TFS-51400434) Valve Spring Cups: Valve Spring I.D. Locators:

1.550" (TFS-21400440) 12-C01: 7° x 1.500" o.d. chromoly steel Valve Spring Retainers:

(TFS-31400424)

T12-C01: 10° x 1.500" o.d. titanium (TFS-214T0420) 10-C01/13-C01/14-C01/16-C02/18-C02:

10° x 1.550" o.d. titanium (TFS-214T0525) 7° machined steel (TFS-51400444)

10° machined steel with lash cap (TFS-52400444)

Valve Springs, 10-CO1: 1.560" o.d. dual spring with damper

(TFS-16318-16)

240 lbs. @ 2.000" installed height 600 lbs. @ 1.280" open

500 lbs. per inch rate .700" maximum valve lift

Valve Springs, 12-CO1: 1.460" o.d. dual spring with damper

(TFS-16315-16)

134 lbs. @ 1.800" installed height

405 lbs. @ 1.200" open 452 lbs. per inch rate .600" maximum valve lift

13-C01/14-C01/16-C02/18-C02:1.550" o.d. dual spring with damper

(TFS-16324-16) 240 lbs. @ 1.920" installed height 550 lbs. @ 1.270" open

460 lbs. per inch rate .680" maximum valve lift

Guideplates: 5/16" (TFS-51700623), 3/8" (TFS-51700624)

Rocker Arm Studs: 7/16" (TFS-51400614)

TFS-51400510 (1.6 ratio, 3/8" studs) TFS-51400510 (1.6 ratio, 3/8" studs) TFS-51400511 (1.72 ratio, 3/8" studs) TFS-51400520 (1.6 ratio, 7/16" studs) TFS-51400521 (1.72 ratio, 7/16" studs) Rocker Arms

Minimum Bore Diameter: Cylinder Head Bolts: TFS-92005

TFS-51494060-040, TFS-51494080-040, or TFS-51494155-040 Head Gaskets:

Longer than stock required Autolite 3924

Spark Plugs: NOTE: Valve cover rail is raised .400" over stock. Viton® is a registered trademark of DuPont Performance Elastomers.





### Twisted Wedge® 11R Top-End Engine Kit for Small Block Ford

Save cash and take the guesswork out of designing a winning engine combination with this Trick Flow Twisted Wedge 11R top-end engine kit. Carefully tuned by Trick Flow engineers to deliver optimum horsepower and torque on a small block Ford, this kit is built around a set of dyno-proven Twisted Wedge 11R 170 cylinder heads (TFS-52515301-C00). Also included is a Track Max® hydraulic roller camshaft (TFS-51403001), 1.6 ratio roller rocker arms (TFS-51400520), true roller timing chain set (TFS-52578520), chromoly pushrod set (TFS-21407050), cylinder head bolt kit (TFS-92005), and a complete engine gasket set (TFS-51400904).

TFS-K525-432-370 Top-end engine kit, 432 HP/370 lbs.-ft., each



## Twisted Wedge® Top-End Engine Kits for Ford 5.0L



Trick Flow Twisted Wedge top-end engine kits provide dyno-proven power without the guesswork. Built around Trick Flow's Twisted Wedge 170 cylinder heads (TFS-51410004-M61), the kits include a specially matched Track Max® hydraulic roller cam (TFS-51403001), roller rockers (TFS-51400510), gasket kit (TFS-51400904), billet timing chain (TFS-52578520), pushrods (TFS-21406700), short valve covers, and our billet oil fill kit (TFS-51400800). Lifters not included.

#### Twisted Wedge StreetBurner® Top-End Engine Kits

These kits include everything listed above, plus Trick Flow's StreetBurner EFI intake manifold.

TFS-K514-350-370 350 HP/370 lbs.-ft., silver valve covers and intake, each TFS-K514-350370B 350 HP/370 lbs.-ft., black valve covers and intake, each

#### Twisted Wedge Track Heat® Top-End Engine Kits

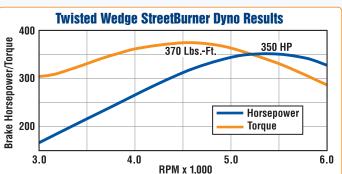
These kits include everything listed above, plus Trick Flow's Track Heat EFI intake manifold.

TFS-K514-360-350 360 HP/350 lbs.-ft., silver valve covers and intake, each TFS-K514-360350B 360 HP/350 lbs.-ft., black valve covers and intake, each

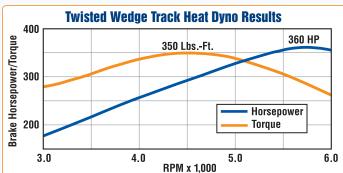


RPM x 1,000

Test Engine: 306 c.i.d. short block with Trick Flow Twisted Wedge® 11.0:1 compression forged pistons (TFS-51404000), Trick Flow Twisted Wedge® 118 170 cylinder heads (TFS-52515301-C00), Trick Flow Track Max® hydraulic roller camshaft (TFS-51403001), Trick Flow roller rocker arms (TFS-51400520), Trick Flow true roller timing chain set (TFS-52578520), Trick Flow chromoly pushrods (TFS-20407050), Edelbrock Performer RPM Air Gap intake manifold, Trick Flow by Quick Fuel Technology Track Heat® carburetor (TFS-20750R), Hooker Super Competition headers with 13/4° primaries, 3° dual exhaust with Flowmaster 40 Series Delta Flow mufflers.



Test Engine: 306 c.i.d. short block with 9.5:1 compression, Trick Flow Twisted Wedge® 170 cylinder heads (TFS-51410004-M61), Trick Flow Track Max® hydraulic roller cam (TFS 51403001), Trick Flow StreetBurner® EFI intake manifold (TFS-51500001), Trick Flow TFX™ 70mm throttle body (TFS-24070), Trick Flow TFX™ 24 lb./hr. fuel injectors (TFS-89024), 190 lph fuel pump, mass air, and 10° base timing.



Test Engine: 306 c.i.d. short block with 9.5:1 compression, Twisted Wedge® 170 cylinder heads (TFS-51410004-M61), Trick Flow Track Max® hydraulic roller cam (TFS-51403001), Trick Flow Track Heat® EFI intake manifold (TFS-51500002), Trick Flow TFX™ 70mm throttle body (TFS-24070), Trick Flow TFX™ 24 lb./hr. fuel injectors (TFS-89024), 190 lph fuel pump, mass air, and 10° base timing.

#### **EFI Intake Manifold Kits for Ford 5.0L/351W**

When it comes to making horsepower, one size doesn't fit all. That's why Trick Flow offers many intake manifold combinations for 5.0L and 351W Fords. Each manifold is computer-engineered to deliver an excellent balance of airflow distribution and velocity to increase low-end torque and provide superior high-RPM horsepower.

Silver Black All EFI intake manifolds are available

All Trick Flow manifold uppers are made from A319 aluminum and available in silver and black powdercoated finishes for long-lasting good looks, or in a natural version for those who prefer a natural aluminum look or wish to use a custom finish.

CARB

Exempl

CARB

Exempt

CARE

Exempl

• 5.0L StreetBurner EFI manifolds are emissions-legal under CARB E.O. #D-369-3; all other manifolds are designed for non-EGR engines.

May require aftermarket fuel rails; computer modification required to operate properly.

· All manifold lowers have a natural aluminum finish.

#### EFI Intake Manifold Kits for Ford 5.0L

TFS-51500001 StreetBurner manifold kit, silver upper, each TFS-51500002 Track Heat manifold kit, silver upper, each TFS-51500003 R-Series 75mm manifold kit, silver upper, each TFS-51500005 R-Series 90mm manifold kit, silver upper, each TFS-51500008 Box-R-Series manifold kit, silver upper, each TFS-51511001 StreetBurner manifold kit, black upper, each Track Heat manifold kit, black upper, each TFS-51511002 TFS-51511003 R-Series 75mm manifold kit, black upper, each TFS-51511005 R-Series 90mm manifold kit, black upper, each Box-R-Series manifold kit, black upper, each TFS-51511008 TFS-515B0001 StreetBurner manifold kit, natural upper, each TFS-515B0002 Track Heat manifold kit, natural upper, each R-Series 75mm manifold kit, natural upper, each TFS-515B0003 TFS-515B0005 R-Series 90mm manifold kit, natural upper, each Box-R-Series manifold kit, natural upper, each TFS-515B0008



R-Series 75mm manifold kit, silver upper, each TFS-51500004 TFS-51500006 R-Series 90mm manifold kit. silver upper, each Box-R-Series manifold kit, silver upper, each TFS-51500009 R-Series 75mm manifold kit, black upper, each TFS-51511004 TFS-51511006 R-Series 90mm manifold kit. black upper, each TFS-51511009 Box-R-Series manifold kit, black upper, each TFS-515B0004 R-Series 75mm manifold kit, natural upper, each R-Series 90mm manifold kit, natural upper, each TFS-515B0006 TFS-515B0009 Box-R-Series manifold kit, natural upper, each

#### PCV Valve, Grommet, and Filter Kit

TFS-51500810 PCV valve, grommet, and filter kit, screen-type filter, each

#### TFX™ EFI Fuel Rails and Fuel Rail Kit for Ford 5.0L

#### **TFX EFI Fuel Rails**

TFS-5158000R EFI fuel rails, pair

#### **TFX EFI Fuel Rail Kit**

TFS-51580001 EFI fuel rail kit, includes fuel rails, mounting brackets, fittings, hose, and fuel pressure regulator, each









EFI Intake Manifold Specifications for Ford 5.0L/351W							
		5	.0L		351W		
Manifold	StreetBurner®	Track Heat®	R-Series	Box-R-Series	R-Series	Box-R-Series	
Engine Size	5.0L	5.0L	5.0L	5.0L	351W	351W	
Runner	nner Small cross-section with 15.000" runner wit		Large cross-section with 12.000" runner	Large cross-section with 9.750" runner	Large cross-section with 13.300" runner	Large cross-section with 11.000" runner	
RPM Range Idle-5,500 1,500-6,500		1,500-6,500	2,500-7,250/ 3,000-7,750	3,000-8,000	1,500-5,500/ 2,000-7,000	2,500-7,500	
Throttle Body Inlet	75mm	75mm	75mm/90mm	90mm	75mm/90mm	90mm	
Port Size at Head	2.000" x 1.200"	2.000" x 1.200"	2.000" x 1.200"	2.000" x 1.200"	2.000" x 1.200"	2.000" x 1.200"	
Port Size at Mating Flange	2.000" x 1.200"	2.000" x 1.200"	2.380" x 1.380"	2.380" x 1.380"	2.380" x 1.380"	2.380" x 1.380"	
Overall Height to Upper Manifold Flange	10.200"	10.200"	11.000"	12.300"	11.700"	13.100"	
Overall Height to Lower Manifold Flange	4.625"	4.625"	4.625"	4.625"	5.375"	5.375"	



#### TFX™ Nitrous Systems for Trick Flow EFI Manifolds for Ford 5.0L

Trick Flow TFX nitrous systems are an easy, affordable way to bolt on big power. These EFI manifold nitrous systems are specifically designed for 1986-95 5.0L Fords with Trick Flow intake manifolds. TFX systems are adjustable in 50 horsepower increments from 50 to 200 horsepower. The systems include spray bar plates, calibrated solenoids, jets, switches, lines, filter, 10 lb. unfilled bottle, bottle brackets, 14 ft. of -4 AN braided stainless steel line, hardware, and instructions.

TFS-N5150 Nitrous system, StreetBurner®/Track Heat® intakes, each
TFS-N5150PL Plate and jets only, StreetBurner/Track Heat intakes, kit
Nitrous system, R-Series intake, each
TFS-N515RPL Plate and jets only, R-Series intake, kit
Nitrous system, Box-R-Series intake, each
TFS-N5158PL Plate and jets only, Box-R-Series intake, kit



Trick Flow R-Series single plane intake manifolds for small block Ford are designed for maximum power delivery in heavily modified engines that operate in the 3,500-7,500 plus RPM range. Crucial features include A319 aluminum construction, a one-piece spider-type design, high-flow individual runners combined with a raised plenum floor, and extra material for custom porting. Manifolds for carburetor use include integral bosses for adding nitrous and accept Holley 4150-style square bore carburetors. Manifolds for EFI use feature custom machined fuel injection nozzle ports that accept standard Bosch and Siemens-type fuel injectors. The port size at the head flange for all versions of these manifolds is 2.100" x 1.280", however, they can be port matched as large as 2.250" x 1.400". Overall height to the mounting pad is 6.300" (5.0L/302 engines) or 6.450" (351W engines).

#### **R-Series Intake Manifolds**

TFS-52400111 Manifold, 289/302, square bore carburetor, each
TFS-52400112 Manifold, 289/302, carb-style EFI, each
TFS-52400114 Manifold, 351W, square bore carburetor, each
TFS-52400115 Manifold, 351W, carb-style EFI, each

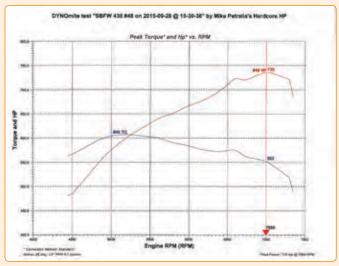
#### **TFX™ EFI Fuel Rails**

TFS-5248000R EFI fuel rails, 289/302, carb-style EFI manifolds, pair TFS-5248005R EFI fuel rails, 351W, carb-style EFI manifolds, pair

### 725 Horsepower Using Trick Flow High Port® 240 Cylinder Heads!

Mike Petralia of Hardcore Horsepower and Dyno Testing in Franklin, Tennessee built a carbureted, 438 cubic inch small block Ford. To feed that big motor the air it needed, he called on Trick Flow for a pair of High Port 240 cylinder heads. The results? 725 horsepower and 614 lbs.-ft. of torque—naturally aspirated!





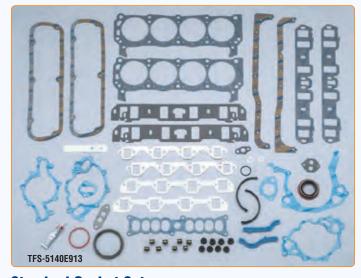


#### **Individual Gaskets**

Trick Flow gaskets are made from high-quality materials with superior fit and designed to deliver trouble-free performance over the long haul. The individual replacement gaskets save you money by letting you purchase just the gaskets you need instead of an entire kit.

TFS-51400921	Intake manifold gaskets with crossover, pair
TFS-51400931	Header gaskets, OE Ford cylinder heads, pair
TFS-51400941	Valve cover gaskets, molded with steel core, pair
TFS-51400951	Oil pan gasket, one-piece molded, each
TFS-51700931	Header gaskets, Trick Flow High Port cylinder heads, pair
TFS-52400901	Header gaskets, Trick Flow Twisted Wedge <sup>®</sup> Race cylinder heads, pair
TFS-52400921	Intake manifold gaskets, large race, 2.250" x 1.400", 1/16" thick, pair
TFS-52400922	Intake manifold gaskets, large race, 2.250" x 1.400", .090" thick, pair
TFS-52400923	Intake manifold gaskets, large race,

2.250" x 1.400", 1/8" thick, pair



#### **Standard Gasket Sets** for Small Block Ford

These Trick Flow gasket sets are ideal for stock or mild performance engine buildups. They include everything required to seal an engine. including header gaskets, for about the same price as other companies' less complete kits.

TFS-5140E912 Engine gasket set, with two-piece rear main seal, each TFS-5140E913 Engine gasket set, with EFI and one-piece rear main seal, each

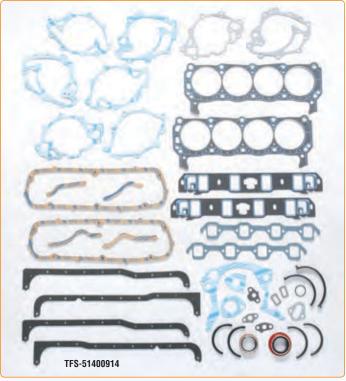


#### **Header Flanges for Small Block Ford**

Trick Flow header flanges allow you to custom build your own set of headers and mount them to Trick Flow High Port and Race series small block Ford cylinder heads.

TFS-51700801

Header flanges, 3/8" thick, High Port and R-Series cylinder heads, pair



#### **Premium Gasket Sets** for Small Block Ford

Sets include cylinder head gaskets, intake gaskets, exhaust gaskets, valve cover gaskets, oil pan gaskets, and other gaskets specific to the application.

#### **Engine Gasket Sets**

TFS-51400912	Engine gasket set, 302/5.0L, with EFI, includes Loc-Wire and
	GT-40 upper gasket, each
TFS-51400914	Engine gasket set, Twisted Wedge cylinder heads, each
TFS-51400915	Engine gasket set, Twisted Wedge cylinder heads with
	O-rings, each
TFS-51700914	Engine gasket set, High Port cylinder heads, each
TFS-51700915	Engine gasket set, High Port cylinder heads with O-rings, each

#### **Head Gasket Sets**

Sets include head gaskets, intake gaskets, exhaust gaskets, valve cover gaskets, and other gaskets specific to the application.

TFS-51400902	Head gasket set, 302/5.0L with EFI, includes Loc-Wire and GT-40 upper gasket, each
TFS-51400903	Head gasket set, Twisted Wedge cylinder heads with O-rings, carbureted intake manifold, each
TEO E4 400004	· · · · · · · · · · · · · · · · · · ·
TFS-51400904	Head gasket set, Twisted Wedge cylinder heads, each
TFS-51400905	Head gasket set, Twisted Wedge cylinder heads with
	O-rings, EFI intake manifold, each
TFS-51700904	Head gasket set, High Port cylinder heads, each
TFS-51700905	Head gasket set, High Port cylinder heads with O-rings, each

## Cylinder Head Bolt Kit for Small Block Ford



high-quality cylinder head bolt kits provide consistent clamping force from bolt-to-bolt. The bolts are made from premium quality alloy steel with cold-formed heads and rolled threads. A black oxide finish protects them from wear and corrosion. The kit contains all the bolts you need to install a pair of heads, including hardened washers.

TFS-92005 Cylinder head bolt kit, 289/302, hex head, each



TFS-51403001

#### Track Max® Hydraulic Roller Camshafts for Ford 5.0L

Give your small block Ford or Ford 5.0L engine significant horsepower and torque increases with a Trick Flow® Track Max® Hydraulic Roller Camshaft. These premium billet steel, hydraulic roller camshafts are dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. The camshafts are cut from premium blank cores and checked for proper hardness before being precision ground to exact tolerances.

TFS-51400510

TFS-2500100

Camshaft Specifications						
Part Number	Characteristics	Duration @ .050"	Valve Lift w/1.6 Rocker	Lobe Sep.		
TFS-51403001	Good idle, strong midrange power, 2,000-5,000 RPM powerband. Aftermarket intake, heads, and headers recommended. Calibrated mass airflow meter required. Compression: 9:1 minimum.	221°/225°	.499"/.510"	112°		
TFS-51403002	Fair idle, good midrange power, 2,500-6,000 RPM powerband. 2,500-3,000 RPM stall converter or 5-speed transmission. 3.55 or numerically higher gears. Calibrated mass airflow meter required. Compression: 9.5:1 minimum.	224°/232°	.542"/.563"	112°		
TFS-51403003	Rough idle, strong top-end power, 3,200-6,800 RPM powerband. 3,000-3,500 RPM stall converter. 3,90-4,111 gears. Calibrated mass airflow meter required. Compression: 10:1 minimum.	236°/248°	.574"/.595"	110°		
TFS-51403004	Rough idle, strong top-end power, 3,000-7,000 RPM powerband. 3,000-3,500 RPM stall converter. 3.90-4.11 gears. Calibrated mass airflow meter required. Compression: 10:1 minimum.	242°/246°	.595"/.595"	110°		
TFS-51403005	Rough idle, strong top-end power, 3,400-7,000 RPM powerband. 3,000-3,500 RPM stall converter. 3.90-4.11 gears. Calibrated mass airflow meter required. Compression: 10:1 minimum.	250°/254°	.595"/.595"	110°		

#### Roller Rocker Arms for Small Block Ford

These aluminum roller rockers are excellent for use with Trick Flow heads. They can also be used on Ford factory and other aftermarket heads. They feature heat-treated CNC-machined bodies, premium needle-bearing fulcrums, roller tips, and a machined relief for improved valve spring clearance. Trick Flow roller rockers are sold in sets of 16 and come complete with polylocks.

TFS-51400510	Rocker arms, 1.6 ratio, 3/8" studs, set of 16
TFS-51400511	Rocker arms, 1.72 ratio, 3/8" studs, set of 16
TFS-51400512	Rocker arms, 1.6/1.72 ratio split, 3/8" studs, set of 16
TFS-51400520	Rocker arms, 1.6 ratio, 7/16" studs, set of 16
TFS-51400521	Rocker arms, 1.72 ratio, 7/16" studs, set of 16
TFS-51400522	Rocker arms, 1.6/1.72 ratio split, 7/16" studs, set of 16

#### Trick Flow by PAC Racing Valve Spring Upgrade Kits for Small Block Ford

These kits include everything needed to upgrade the valve springs on OEM or Twisted Wedge heads. The

OEM spring upgrade kit is for 289-351W Ford cast iron heads and will provide 110 lbs. of seat pressure at 1.800" installed height and .540" max lift. The PAC dual spring upgrade kit converts standard Twisted Wedge 170 heads to the optional high lift cam spring set with 125 lbs. of seat pressure at 1.800" installed height and .600" max lift. Both kits include valve springs with dampers, chromoly retainers,

valve seals and locks, spring shims, spring height gauge, and instructions.

TFS-2500100 Valve spring upgrade kit, 0EM 289-351W cast iron heads, each
Valve spring upgrade kit, upgrades Twisted Wedge 170 heads
to optional high lift cam spring set, each

True Roller Timing Chain Set for Small Block Ford

Billet steel gears and a double roller timing chain combine to make this Trick Flow timing chain set the strongest, most accurate available today. Furthermore, the crank sprocket features multiple keyways to allow the cam to be installed straight-up, retarded, or advanced.

TFS-52578520 Timing chain set, each



### Rocker Stud Girdles for Small Block Ford



These CNC-machined stud girdles help control valve lift and timing changes due to stud flex, allowing more consistent high-RPM performance. Each stud girdle is anodized blue and comes with high-quality mounting hardware and hardened adjusting nuts. Tall-style valve covers are required.

#### Girdles for Twisted Wedge® Heads

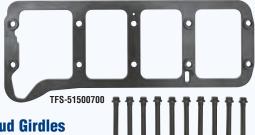
TFS-51400700 Rocker stud girdles, 3/8", pair TFS-51400701 Rocker stud girdles, 7/16", pair

#### Girdles for High Port® Heads

TFS-51700700 Rocker stud girdles, 3/8", pair TFS-51700701 Rocker stud girdles, 7/16", pair

#### **Girdles for Race Heads**

TFS-52400701 Rocker stud girdles, 7/16", pair



### Main Stud Girdles for Small Block Ford

Trick Flow bolt-on main girdles strengthen Ford's factory two-bolt main cap assembly. The girdles are made from tool steel, finished with black oxide, and come with ARP main cap bolts and a provision for an oil pump pickup tube hold down. The race girdle features beefier 1/2" thick construction for extra strength and includes main studs instead of bolts.

NOTE: Race version requires main cap machining.

#### Main Stud Girdles, Street

TFS-51500700 Main stud girdle, 289/302, each TFS-51500701 Main stud girdle, 351W, each

Main Stud Girdles, Race

TFS-5150R700 Main stud girdle, 289/302, each





#### **Chrome Valve Covers** for Small Block Ford

Trick Flow chrome plated valve covers provide a great alternative to higher-priced aluminum covers. They feature embossed Trick Flow logos and triple chrome plating for a long-lasting shine. New gaskets are included.

TFS-44002 Valve covers, chrome, pair



#### **Fabricated Aluminum Valve Covers** for Small Block Ford

These good-looking, tall height (3½" overall) fabricated valve covers have an embossed Trick Flow logo and clear roller rockers and stud girdles. They're made from .084" thick aluminum to reduce engine weight and include the necessary fasteners to ensure a correct installation.

TFS-51400804 Valve covers, natural, pair





#### Cast Aluminum Valve Covers for Small Block Ford



Made from durable A319 aluminum, Trick Flow cast aluminum valve covers are much less prone to flex and distortion than stamped steel covers, which helps prevent oil leaks. The covers come in standard height to clear most roller rockers and tall height to clear stud girdles and roller rockers. Covers can be drilled for breathers.

#### Standard Height Covers, 3" Overall Height

**NOTE:** These covers will clear roller rocker arms but not rocker stud girdles.

TFS-51400801 Valve covers, silver, pair TFS-51411801 Valve covers, black, pair Valve covers, natural, pair TFS-5140B801

TFS-25200801 Hardware kit, includes twelve 1/4"-20 x 1.500" studs

and 12 flanged nuts, each

#### Tall Height Covers, 31/8" Overall Height

**NOTE:** These covers will clear roller rocker arms and rocker stud girdles.

TFS-51400802 Valve covers, silver, pair TFS-51411802 Valve covers, black, pair TFS-5140B802 Valve covers, natural, pair

**★**MADE

TFS-25200802 Hardware kit. includes ten 1/4"-20 x 1.500" studs. two 1/4"-20 x 4.250" studs and 12 flanged nuts, each

#### Trick Flow by Wiseco Twisted Wedge® Forged Piston Sets for Small Block Ford

Trick Flow's lightweight forged pistons are fully skirted and precision-machined from premium aluminum alloy. They feature oversized valve reliefs, precision-fit wrist pins, and Spirolox retainers.

Trick Flow pistons are designed to perfectly match the unique chamber and valve angles of the Twisted Wedge heads. They're available with a choice of compression ratios as low as 8.0:1 for supercharged Ford applications.

All pistons use ring sets with a 1/16" top ring, 1/16" second ring, and 3/16" oil control ring. Sold in sets of 8.

**NOTE:** Compression ratios are based on 61cc combustion chamber heads.





TFS-51404330

TFS-51404000

<b>Specifications</b>							
Part Numbers	Engine Size	Bore	Stroke	Rod	Comp. Height	Comp. Ratio	Pin Dia.
TFS-51404010	306 (302)	4.030"	3.000"	5.090"	1.610"	8.0:1	.912"
TFS-51404000	306 (302)	4.030"	3.000"	5.090"	1.600"	10.0:1	.912"
TFS-51404332	331 (302)	4.030"	3.250"	5.400"	1.165"	10.0:1	.927"
TFS-51404111	347 (302)	4.030"	3.400"	5.400"	1.090"	10.0:1	.927"
TFS-51404110	347 (302)	4.030"	3.400"	5.400"	1.090"	9.0:1	.927"
TFS-51404221	358 (351W)	4.030"	3.500"	5.955"	1.786"	10.0:1	.912"
TFS-51404010	393 (351W)	4.030"	3.850"	5.955"	1.610"	10.0:1	.912"
TFS-51404000	393 (351W)	4.030"	3.850"	5.955"	1.610"	12.0:1	.912"
TFS-51404331	408 (351W)	4.030"	4.000"	6.200"	1.290"	10.0:1	.927"
TFS-51404330	408 (351W)	4.030"	4.000"	6.200"	1.290"	9.0:1	.927"



#### **EFI Heat Spacer Kits** for Ford 5.0L/351W

CNC-machined in the USA from premium phenolic material, Trick Flow EFI heat spacers fit between the upper and lower intakes to create a heat flow barrier. This keeps the air in the upper intake cooler and denser. In addition, they will allow the use of taller valve covers by raising the upper intake.

Trick Flow EFI spacers are available in 3/8" and 1" thick versions. Gaskets and longer mounting bolts are included. 1994-95 Mustangs will require modifications for hood clearance.

#### 5.0L H.O. Heat Spacer Kits, 1986-93

TFS-51520001 Spacer, 3/8", each TFS-51520002 Spacer, 1", each 5.0L H.O. Heat Spacer Kits, 1994-95 TFS-5152SN01 Spacer, 3/8", each

Spacer, 1", each TFS-5152SN02 5.0L Ford Truck Heat Spacer Kits

TFS-51520003 Spacer, 3/8", each Spacer, 1", each TFS-51520004

**Holley Manifold Heat Spacer Kits** 

TFS-51520005 Spacer, 3/8", each TFS-51520006 Spacer, 1", each

#### Trick Flow StreetBurner® and Track Heat® Spacer Kits TFS-51520007 Spacer, 3/8", each

TFS-51520008 Spacer, 1", each **Trick Flow R-Series Spacer Kits** TFS-51520009 Spacer, 3/8", each TFS-51520012 Spacer, 1", each

**Edelbrock Performer 5.0L RPM Spacer Kits** 

TFS-51520013 Spacer, 3/8", each Spacer, 1", each TFS-51520014

#### **Edelbrock Performer 5.0L RPM II Spacer Kits**

TFS-51520021 Spacer, 3/8", each TFS-51520022 Spacer, 1", each

**Edelbrock Victor 5.0L Spacer Kits** 

TFS-51520015 Spacer, 3/8", each TFS-51520016 Spacer, 1", each **Ford Racing Cobra Heat Spacer Kits** 

Spacer, 3/8", each TFS-51520017

Spacer, 1", each TFS-51520018 Ford Racing GT-40 Heat Spacer Kits

TFS-51520019 Spacer, 3/8", each TFS-51520020 Spacer, 1", each

#### **Billet Oil Fill Kit** for Ford 5.0L

This great-looking oil fill kit is specially made to work with small block EFI Fords with Trick Flow short valve covers. Made from billet aluminum, it comes with a vacuum fitting, an O-ring cap, and value cover grommet. The kit also has a clear corrosion-resistant finish for long life and is 4" tall.

TFS-51400800 Billet oil fill kit, each

TFS-51400800-C Replacement cap, with O-ring, each TFS-51400800-G Replacement grommet, 3/4", each



#### A/C Eliminator Bracket for Ford 5.0L

Designed for 1986-93 5.0L Mustang, this Trick Flow A/C eliminator bracket mounts above the water pump and bolts to the power steering unit using your stock hardware. The bracket is made from 6061 aluminum, powdercoated black, and comes with all necessary mounting hardware. Pulley not included.

**NOTE:** New serpentine belt required after installation.

TFS-51500600 Eliminator bracket, each





#### **EFI Intake Manifold SN95 Throttle Body Adapters** for Ford 5.0L

These aluminum adapters allow Trick Flow manifolds to be mounted on 1994-95 5.0L Mustangs. They feature a 75mm throttle bore and include mounting gaskets.

TFS-5150SN95 Adapter, natural, each TFS-5150SN95-00 Adapter, silver, each TFS-5150SN95-11 Adapter, black, each



#### **Throttle Cable Bracket Kits** for Ford 5.0L/351W **EFI Intake Manifolds**

Trick Flow throttle cable bracket kits provide a place to mount throttle cables on 1986-93 5.0L Mustangs with either 75mm or 90mm manifolds and no EGR plate. They feature a clear anodized finish and include gaskets and mounting hardware.

Throttle cable bracket kit, TFS-51500075 75mm manifolds, each TFS-51500090 Throttle cable bracket kit.

90mm manifolds, each



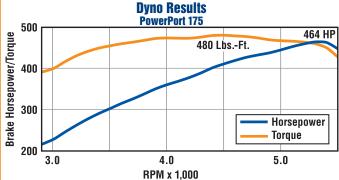
### PowerPort® 175 Cylinder Heads for Ford 390-428

Trick Flow PowerPort 175 cylinder heads are freshly designed and engineered to deliver more flow and more go for your 1961-76 390-428 engine! They're made from top-quality A356-T61 aluminum so they're much lighter but still as strong as OE castings. The intake runners have been optimized to increase flow velocity and Trick Flow's special CNC Street Ported treatment quarantees proper dimensional accuracy and balance between the runners. Other performance improvements of the PowerPort 175 heads include bronze alloy valve guides, ductile iron valve seats, and multi-angle valve seat machining.

Assembled cylinder heads include premium 11/32" stainless steel valves, Trick Flow by PAC Racing valve springs, 7° or 10° steel valve stem locks, and chromoly or titanium retainer options.

Cylinder heads are available fully assembled or as bare castings

Sold individually.



Test Engine: 10.63:1 compression 396 c.i.d. with Trick Flow PowerPort® 175 cylinder heads (TFS-5641T703-C00), COMP Cams Xtreme Energy hydraulic roller camshaft (230°/236° duration @ .050"; .529"/.540" lift; 110° lobe separation), Harland Sharp 1.76 ratio shaft mount roller rocker arms, Trick Flow Track Heat® intake manifold (TFS-56400112), Trick Flow Track Heat Pro 850 cfm carburetor (TFS-20850R) and 1" CNC billet aluminum carburetor spacer (TFS-2141501B), Patriot Exhaust full-length headers with 13/4" primaries, 3 " dual exhaust with Flowmaster mufflers.

#### PowerPort 175 Heads, CNC Street Ported Runners, Assembled

TFS-56417001-C00 TFS-56417002-C00 TFS-5641T703-C00

1.460" dual valve springs, 175cc intake runners 1.550" dual valve springs, 175cc intake runners 1.550" dual valve springs and titanium retainers,

175cc intake runners



#### **Track Heat® Intake Manifold** for Ford 390-428

A new set of performance cylinder heads isn't much good without an intake manifold with the same power-building characteristics, so Trick Flow engineers designed an intake to work with them and other similar-style cylinder heads.

Trick Flow's Track Heat single plane intake manifold for Ford 390-428 features a high-rise, one-piece spider-type design with high flow extended runners and a raised plenum floor to significantly increase horsepower and torque in the 4,000-7,500 RPM range. There are also bosses for nitrous nozzles and extra material for custom port work. Overall height to the carburetor mounting pad is 6.250". Accepts Holley 4150 and other square bore-style carbs.

TFS-56400112 Manifold, each



TFS-56417002-C00

Material: A356-T61 aluminum Combustion Chamber Volume: 70cc CNC-profiled Intake Port Volume: 175cc CNC Street Ported Intake Port Location: Stock

Intake Port Dimensions: 1.400" x 2.100" Intake Gaskets: Fel-Pro 1247

2.190" (TFS-56400211) Intake Valve Diameter: Intake Valve Seat: Ductile iron (TFS-53400271) Exhaust Port Volume: 113cc CNC Street Ported

Exhaust Port Location: Stock Exhaust Port Dimensions:

1.300" x 1.670" TFS-56490931 or Fel-Pro 1442 Exhaust Gaskets:

1.625 (TFS-56400212) Ductile iron (TFS-30600274) Exhaust Valve Diameter: Exhaust Valve Seat: Valve Angles: Valve Guide Material:

Bronze alloy (intake TFS-51600251, exhaust TFS-61600251)

Valve Seals:

Viton® fluoroelastomer canister (TFS-30400454)

Valve Seat Angles: 45° x multi-angle 1 615"

Valve Spring Pocket Diameter:

1.550" (TFS-21400440) Valve Spring I.D. Locators: Valve Spring Retainers:

7° x 1.500" o.d. chromoly steel (TFS-31400424) 10° x 1.550" o.d. chromoly steel (TFS-21400425) 10° x 1.550" o.d. titanium (TFS-214T0520)

Valve Stem Locks: 7° machined steel (TFS-51400444) 10° machined steel with lash cap recess

(TFS-52400444)

1.460" o.d. dual spring with damper Valve Springs, Standard:

(TFS-16893-16)

120 lbs. @ 1.900" installed height

394 lbs. @ 1.175" open 390 lbs. per inch rate .650" max. valve lift

Valve Springs, Option 1: 1.550" o.d. dual spring with damper

(TFS-16094-16)

138 lbs. @ 1.950" installed height 430 lbs. @ 1.250" open

420 lbs. per inch rate .680" max. valve lift

Minimum Bore Diameter: 4.050" Cylinder Head Bolts:

ARP 155-3601 Cylinder Head Studs: ARP 155-4001 TFS-56494080-040. Head Gaskets: TFS-56494165-040, or

TFS-56494250-040 Autolite 3924

FOLION

Spark Plugs:

Viton® is a registered trademark of DuPont Performance Elastomer

#### **R-Series Tunnel Wedge Intake Manifold** for Ford 390-428

Trick Flow's take on the classic Tunnel 000 Wedge intake manifold brings old school looks, modern performance, and advanced manufacturing together in one package! Since part of the original Tunnel Wedge's cool factor was its appearance, Trick Flow took special care to match the original intakes appearance and carburetor locations. On the inside though, Trick Flow overhauled the port design for more airflow and incorporated an O-ring sealed bottom plate. Cast in premium grade A319 aluminum, the manifold is topped with 4150-/4160-style square bore carb flanges.







Trick Flow PowerPort cylinder heads are designed for high performance Ford 429/460 engines, providing significant horsepower and torque gains over similar-style cylinder heads. Highlights include an extremely efficient chamber design for more complete combustion and exhaust ports raised .270" from stock for increased airflow.

The PowerPort 290 heads feature Fast As Cast® runners that duplicate the port shape and profile of CNC-ported heads, delivering near-CNC-ported airflow, power, and performance for about the same price as regular cast cylinder heads. The PowerPort 325 heads have Competition Ported runners with CNC-profiled combustion chambers and runners with a premium high resolution surface finish for maximum, all-out performance.

Cylinder heads are available fully assembled or as bare castings. Sold individually.



Intake Port Location: 01/02/03/04: 1.960" x 2.210" C01: 2.030" x 2.540" Intake Port Dimensions:

Combustion Chamber Volume: 01/02/03/04: 74cc standard

TFS-5341T010-C01

USA

Material:

Intake Port Volume:

Intake Gaskets: 01/02/03/04: Fel-Pro 1230 C01: TFS-53400921

01/02/03/04: 2.200" (TFS-53400211) Intake Valve Diameter:

**Specifications** 

A356-T61 aluminum

C01: 78cc CNC-profiled

01/02/03/04: 290cc Fast As Cast C01: 325cc CNC Competition Ported

C01: 2.250" (TFS-53400213) Ductile iron (TFS-53400271) Intake Valve Seat: 01/02/03/04: 130cc Fast As Cast Exhaust Port Volume: C01: 145cc CNC Competition Ported Exhaust Port Location:

Raised .270" from stock 01/02/03/04: 1.400" x 1.850" D-shape **Exhaust Port Dimensions:** 

C01: 1.550" x 1.925" Fel-Pro 1420 1.760" (TFS-53400212) Exhaust Gaskets: Exhaust Valve Diameter: 1.700 (1FS-53400212) Ductile iron (TFS-53400272) Intake 15°/5°, exhaust 15.25°/4.5° Bronze alloy (TFS-51600252) Viton © fluoroelastomer (TFS-30400454) Exhaust Valve Seat: Valve Angles: Valve Guide Material: Valve Seals:

45° x multi-angle Valve Seat Angles:

Valve Spring Pocket Diameter: 1.760" Valve Spring Cups: Valve Spring I.D. Locators: 1.640" (TFS-41400434)

1.460/1.550" (TFS-21400440) 7° x 1.500" o.d. chromoly steel (TFS-51400423) Valve Spring Retainers: 10° x 1.550" o.d. chromoly steel (TFS-21400425)

10° x 1.550" o.d. titanium (TFS-214T0520) 10° x 1.625" o.d. + .050" titanium (TFS-214T0620)

Valve Stem Locks: 7° machined steel (TFS-51400444) 10° machined steel with lash cap recess

(TFS-52400444)

Valve Springs: 1.460" o.d. dual

120 lbs. @ 1.900" installed height PowerPort 290/325 Standard

(TFS-16893-16) 394 lbs. @ 1.175<sup>#</sup> open 390 lbs. per inch rate .650" maximum valve lift

Valve Springs: PowerPort 290 Option 1 1.550" o.d. dual spring with damper

(TFS-16094-16)

138 lbs. @ 1.950" installed height PowerPort 325 Option 1 430 lbs. @ 1.250" open

420 lbs. per inch rate .680" maximum valve lift

Valve Springs: 1.550" o.d. dual spring with damper

PowerPort 290 Option 2

(TFS-16324-16) 215 lbs. @ 1.950" installed height

550 lbs. @ 1.270" open 460 lbs. per inch rate

.680" maximum valve lift 1.640" o.d. dual spring with damper Valve Springs:

PowerPort 290 Option 3.

(TFS-16414-16) 250 lbs. @ 2.000" installed height PowerPort 325 Option 2

800 lbs. @ 1.150" open 600 lbs. per inch rate .850" maximum valve lift 3/8" (TFS-53400623)

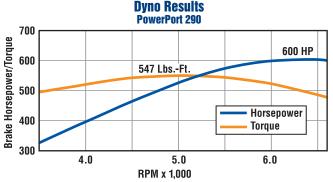
Guideplates: Rocker Arm Studs: 7/16" (TFS-51400614)

Rocker Arms: TFS-53400621 (1.73 ratio, 7/16" studs)

Minimum Bore Diameter: 4.360" ARP 155-3603 TFS-53494500-04 Cylinder Head Bolts: Head Gaskets:

Pushrod Length: Longer than stock required

Spark Plugs: Autolite 3924 Viton® is a registered trademark of DuPont Performance Elastomers.



Test Engine: 10.25:1 compression 460 c.i.d. with Trick Flow Flow PowerPort® 290 cylinder heads (TFS-53410003), COMP Cams Xtreme Energy mechanical roller camshaft (254°/260° duration @.050"; .671"/.678" lift; 110° lobe separation), Trick Flow 1.73 ratio roller rocker arms (TFS-53400621), Edelbrock Performer RPM intake manifold, Hedman headers with 1½" primaries, 3" dual exhaust with Flowmaster mufflers.

#### PowerPort 290 Heads, Fast as Cast Runners, Assembled

TFS-53410001 1.460" dual valve springs, 290cc intake runners TFS-53410002 1.550" dual valve springs, 290cc intake runners TFS-5341T002 1.550" dual valve springs and titanium retainers, 290cc intake runners TFS-53410003 1.550" dual valve springs, 290cc intake runners TFS-5341T003 1.550" dual valve springs and titanium retainers, 290cc intake runners TFS-5341T004 1.640" dual valve springs and titanium retainers,

290cc intake runners

#### PowerPort 325 Heads, CNC Competition Ported Runners, Assembled

TFS-53410007-C01 1.460" dual valve springs, 325cc intake runners TFS-53410008-C01 1.550" dual valve springs, 325cc intake runners TFS-5341T008-C01 1.550" dual valve springs and titatnium retainers, 325cc intake runners TFS-5341T010-C01 1.640" dual valve springs and titanium retainers, 325cc intake runners

Airflow Results PowerPort 290					
Lift Value	Intake Flow CFM	Exhaust Flow CFM			
.100"	72	60			
.200"	152	110			
.300"	219	145			
.400"	280	180			
.500"	331	204			
.600"	344	225			
.700"	350	240			
Tests conducted at 28" of water (pressure). Bore size: 4.380"; exhaust with 2" pipe.					

Trick Flow's potent PowerPort A460 340 and 360 cylinder heads for Ford 429/460 are ideal for use in drag racing, monster trucks, tractor pulling, and other

ultra high power, large cubic inch engine combinations.

for Ford 429/460

.700"

800'

Notable features include big block Chevrolet-style exhaust port openings and bolt pattern plus your choice of standard or heavy duty 18-bolt mounting patterns.

The PowerPort 340 heads feature a Fast As Cast® runner design that duplicates the port shape and profile of CNC-ported heads, delivering near-CNC-ported airflow, power, and performance for about the same price as regular cast cylinder heads. The PowerPort 360 heads feature CNC Competition Ported runners with our top-of-the-line, premium high resolution surface finish for maximum airflow and performance in allout naturally aspirated or forced induction applications.

PowerPort® A460 340 and 360 Cylinder Heads

Cylinder heads are available fully assembled or as bare castings. Sold individually.

PowerPor	Bolt Pattern	
Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	76	67
.200"	160	120
.300"	246	162
.400"	312	204
.500"	357	237
.600"	392	264

**Airflow Results** 

428 Tests conducted at 28" of water (pressure) Bore size: 4.500"; intake valve: 2.350"; exhaust with 2" pipe.

418

286

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search."

#### PowerPort A460 340 Heads, Fast As Cast Runners, Assembled

TFS-5441T801-M87	8/cc combustion chambers, standard bolt pattern, and 2.300"	

intake valves. 340cc intake runners

TFS-5441T802-M83 83cc combustion chambers, standard bolt pattern, and 2.350" intake valves. 340cc intake runners

TFS-5441T802-M87 87cc combustion chambers, standard bolt pattern, and 2.350

intake valves, 340cc intake runners

TFS-5451T802-M83 83cc combustion chambers, 18-bolt pattern, and 2.350"

intake valves. 340cc intake runners

TFS-5451T802-M87 87cc combustion chambers, 18-bolt pattern, and 2.350"

intake valves, 340cc intake runners

#### PowerPort A460 360 Heads, CNC Competition Ported Runners, **Assembled**

TFS-5451T804-C03 85cc combustion chambers, 18-bolt pattern, and 2.400" intake valves, 360cc intake runners

TFS-5451T8T5-C03 85cc combustion chambers, 18-bolt pattern,

and 2.400" titanium intake valves,

360cc intake runners

TFS-5451T804-C04 87cc combustion chambers, 18-bolt pattern, and 2.400" intake valves, 360cc intake runners

Airflow Results PowerPort A460 360											
Lift Value	Intake Flow CFM	Exhaust Flow CFM									
.100"	79	71									
.200"	162	129									
.300"	244	175									
.400"	308	216									
.500"	369	251									
.600"	410	280									
.700"	437	304									
.800"	453	321									

Tests conducted at 28" of water (pressure). Bore size: 4.600"; intake valve: 2.400"; exhaust with 2" pipe.

To view more airflow charts, go to TrickFlow.com and type the part number you want to see into the Search box and then click "Search."

#### **Specifications**

A356-T61 aluminum Material Combustion Chamber Volume: M83: 83cc CNC-profiled M87: 87cc CNC-profiled

C03: 85cc CNC-profiled CO4: 87cc CNC-profiled M83/M87: 340cc Fast As Cast

Intake Port Volume: C03/C04: 360cc

CNC Competition Ported Raised 1.000" from stock Intake Port Location: M83/M87: 1.810" x 2.460" C03/C04: 1.810" x 2.490" Intake Port Dimensions:

Intake Gaskets: TFS-2706

Intake Valve Diameter:

M87 Standard: 2.300" (TFS-54400211)
M83/M87 Standard/18-bolt: 2.350" (TFS-54400210)
C03/C04 18-bolt: 2.400" (TFS-54503211) C03 Titanium: 2.400" (TFS-5450T211)

TFS-5451T804-C03

Ductile iron (TFS-54400271) M83/M87: 172cc Fast As Cast Intake Valve Seat: Exhaust Port Volume: C03/C04: 180cc CNC Competition Ported

Raised 1.500" from stock 1.900" x 1.850" D-shape **Exhaust Port Location:** Exhaust Port Dimensions:

Exhaust Gaskets: Fel-Pro 1412

Exhaust Valve Diameter: M83/M87: 1.880" (TFS-54400212)

C03/C04: 1.880" (TFS-54503212) Exhaust Valve Seat: Ductile iron interlock (TFS-54400272) Valve Angles: Intake 13%5°, exhaust 9.5%5°

Valve Guide Material: M83/M87: Bronze alloy (intake TFS-41400251,

exhaust TFS-54500253) C03/C04: Bronze alloy (intake TFS-54500252,

exhaust TFS-54500253) M83/M87: Viton® fluoroelastomer Valve Seals:

(TFS-30400454)

C03/C04: Viton® fluoroelastomer (intake TFS-54500454-8, exhaust TFS-54500455-8)

Valve Seat Angles: 45° x multi-angle

1.760" Valve Spring Pocket Diameter:

Valve Spring Cups:

1.640" (TFS-41400434) M83/M87: 10° x 1.625" o.d. titanium Valve Spring Retainers:

(TFS-214T0620)

Valve Stem Locks:

(TFS-214T0620)
C03/C04: 10° x 1.625" o.d. titanium
(TFS-214T0650)
M83/M87: 10° machined steel with lash cap
recess (TFS-52400444)
C03/C04: 10° steel bead lock with lash cap
recess (intake TFS-54500444,
exhaust TFS-54500445)
1.640" o.d. dual spring with damper
(TFS-16414-16)

Valve Springs, 340cc:

(TFS-16414-16) 250 lbs. @ 2.000" installed height

800 lbs. @ 1.150" open 600 lbs. per inch rate .850" maximum valve lift

1.645" o.d. triple spring (TFS-16948-16) Valve Springs, 360cc:

332 lbs. @ 2.100" installed height 950 lbs. @ 1.200" open

688 lbs. per inch rate .900" maximum valve lift

Guideplates: 3/8" (TFS-54400623), 7/16" (TFS-54400624)

Rocker Arm Studs: 7/16" (intake TFS-54400614, exhaust

TFS-54400614)

TFS-53400621 (1.73 ratio, 7/16" studs) Rocker Arms: M83/M87: 4.390 Minimum Bore Diameter:

C03/C04: 4.500'

ARP 255-4304 Cylinder Head Bolts:

TFS-53494500-04, TFS-53494670-040 (standard), Head Gaskets: TFS-54594600-045 (18-bolt)

Pushrod Length: Longer than stock required

Autolite 3924 Spark Plugs: Viton® is a registered trademark of DuPont Performance Elastomers.



TFS-54400111

TFS-53400111

#### R-Series A460 Intake Manifolds for Ford 429/460 with Trick Flow PowerPort® A460 Cylinder Heads

Intended for 500-plus cubic inch, high-RPM engines, the Trick Flow R-Series single plane intake manifold features a one-piece, spider-type design with high-flow, extended individual runners and a raised plenum floor for significant horsepower and torque increases. Other features include A319 aluminum construction, extra material for custom port work, and bosses for nitrous or fuel injection. The manifold is designed for Holley 4500 Dominator-style carbs; overall height to carburetor mounting pad is 8.600".

The R-Series A460 tunnel ram manifold has many new exciting features. For starters, the entire A319 aluminum casting was put on a diet to decrease weight. Part of this process included eliminating the water crossover, but bosses have been incorporated on the intake flange to allow external plumbing of a coolant crossover and thermostat, if desired. Additional bosses have also been added to the runners to accommodate fuel injection or multi-stage nitrous injection. The R-Series A460 tunnel ram excels in large cubic inch, high-RPM applications such as tractor pulling and drag racing. The available top covers mount single or dual Holley 4500 Series Dominator-style carbs. Overall height to the top of carburetor mounting pad is 10.480" with the dual carb top and 13.100" with the single carb top.

**NOTE:** These intake manifolds only fit engines equipped with Trick Flow PowerPort® A460 cylinder heads.

#### A460 Single Plane Intake Manifold

Manifold, single Holley 4500 Dominator-style carburetor, each TFS-54400111

#### A460 Tunnel Ram Intake Manifold and Accessories

TFS-54494000 Manifold, lower only, each TFS-54494001 Manifold top cover, for single

Holley 4500 Dominator-style carburetor, each

TFS-54494140 Manifold top cover, for dual

Holley 4500 Dominator-style carburetors, each

TFS-54494140-G Top cover replacement gasket, each

TFS-54494140-LK Linkage kit, for dual

Holley 4500 Dominator-style

carburetors, each



MADE USA

#### Track Heat® and **R-Series Intake Manifolds** for Ford 429/460

Trick Flow's Track Heat single plane intake manifolds for Ford 429/460 are designed for engines that operate in the 3,500-8,000 RPM range. Features include a high-rise, one-piece spider design with high-flow, extended individual runners, A319 aluminum construction, a raised plenum floor for increased flow velocity and fuel atomization, integral bosses for nitrous or fuel injection nozzles, and extra material for custom port work. The manifold is designed to use Holley 4150 and other square bore-style carbs. The overall height to the carburetor mounting pad is 6.800".

The Trick Flow R-Series single plane intake manifold is intended for 500-plus cubic inch, high-RPM engines using single Holley 4500 Dominator-style carbs. The manifold is a one-piece, spidertype design with high-flow extended runners and a raised plenum floor for a significant power boost. A319 aluminum construction, extra material for custom port work, and bosses for nitrous or fuel injection round out the features. Overall height to carburetor mounting pad is 6.800".

#### Track Heat Intake Manifold and Bolt Kit

TFS-53400111 Manifold, each

TFS-534INTBK Manifold bolt kit, fits Track Heat intake manifolds

only, each

**R-Series Intake Manifold** 

TFS-53400112 Manifold, each









This billet steel timing set from Trick Flow is engineered for durability and versatility. The .250" diameter, double-row true roller chain and black oxide-coated crank sprocket are heat-treated for unrivaled strength. The CNC-machined cam gear has nine crank sprocket keyways for zero and +/- 2°, 4°, 6°, or 8° timing adjustments. The timing marks are laser-etched.

Timing chain set, each

#### **Roller Rocker Arms** for Ford 429/460

These aluminum roller rockers are excellent for use with Trick Flow heads. They can also be used on factory Ford 429/460 heads. They feature heat-treated CNC-machined bodies. premium needle-bearing fulcrums, roller tips, and a machined relief for improved valve spring clearance. Trick Flow roller rockers are sold in sets of 16 and come complete with polylocks.



TFS-53400621

Rocker arms, 1.73 ratio, 7/16" studs, set of 16



#### **Rocker Stud Girdles** for Trick Flow PowerPort A460 **Cylinder Heads**

These CNC-machined stud girdles help control valve lift and timing changes due to stud flex, allowing more consistent high-RPM performance. Each stud girdle is anodized blue and comes with high-quality mounting hardware and hardened adjusting nuts. Tall-style valve covers are required.

TFS-54400700 Rocker stud girdles, 7/16", pair



Made from durable A319 aluminum, Trick Flow cast aluminum valve covers are much less prone to flex and distortion than stamped steel covers, which helps prevent oil leaks. The covers have a tall height (4%" overall) to clear stud girdles and roller rockers, and can be drilled for breathers.

TFS-53400802 Valve covers, silver, pair TFS-53411802 Valve covers, black, pair TFS-5340B802 Valve covers, natural, pair TFS-25200803 Hardware kit. includes fourteen 1/4"-20 x 3.000" studs.

fourteen washers, and fourteen nuts, each



#### **Fabricated Valve Covers** for Ford 429/460

These good-looking, tall height (31/8" overall) fabricated valve covers have an embossed Trick Flow logo and clear roller rockers and stud girdles. They're made from .084" thick aluminum to reduce engine weight and include the necessary fasteners to ensure a correct installation.

TFS-53400804 Valve covers, natural, pair



#### **Main Stud Girdle** for Ford 429/460



Trick Flow's bolt-on main girdle strengthens Ford's factory two-bolt main cap assembly. The girdles are made from tool steel, finished with black oxide, and come with ARP main cap bolts and a provision for an oil pump pickup tube hold down.

TFS-53400700

Stud girdle kit, each



Trick Flow chrome plated valve covers provide a great alternative to higher-priced aluminum covers. They feature embossed Trick Flow logos and triple chrome plating for a long-lasting shine. New gaskets are included.

TFS-44003 Valve covers, pair





Trick Flow brings modern manufacturing and engineering to the Flathead Ford V8 crowd! These rugged A356-T61 aluminum heads look great with deep fins and your choice of vintage-look "Trick Flow" block or script lettering.



But the heads also work great thanks to excellent breathing characteristics and large water jackets for improved cooling. The fins dissipate power-robbing heat quickly and add strength to the casting to eliminate warping. The heads fit 24-stud 1949-1953 Ford 8BA and Mercury 8CM engines. Sold individually.

TFS-55410001-L 65cc combustion chambers, left side mount, block logo
TFS-55410001-R 65cc combustion chambers, right side mount, block logo
TFS-55410003-L 65cc combustion chambers, left side mount, script logo
TFS-55410003-R 65cc combustion chambers, right side mount, script logo



## Finding Ultimate Bolt-On Performance™ is Easier than Ever!

Looking for the latest product updates and specifications on Trick Flow products? No problem—just jump online and go to the improved TrickFlow.com!

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- Large product images and 360° views
- Connect with Trick Flow on Facebook, Twitter, Google+, and view product videos on Trick Flow's YouTube channel
- Compare features of multiple products in one frame
- Find information on new product releases, learn about race event announcements, get updates on Trick Flow-sponsored racers, and more in the News section
- Trick Flow technical stories jam-packed with useful information on cylinder heads, camshafts, intake manifolds and more, all backed-up with lots of detailed images and engine combo parts lists
- Complete Trick Flow dealer listing

## Looking for more power? Find it at TrickFlow.com!



#### **Engine Oil Supplement**

Protect your high performance engine from the inside! Just a few short years ago engine oils had higher levels of zinc-dialkyl-dithiophosphate (ZDDP), an anti-wear additive crucial to preventing valvetrain wear in flat tappet camshaft engines. Modern oils have much lower levels of ZDDP, leaving all high-RPM racing, performance street, and marine applications as well as classic, vintage, and musclecar engines with flat tappet camshafts vulnerable to premature camshaft failure.

That's why Trick Flow engineered this oil supplement with increased levels of ZDDP and anti-wear additives. It even provides the extra protection engines need during the critical break-in period.

One bottle treats 5-9 quarts of conventional or synthetic oil and should be used at every oil change.

TFS-94000 Oil supplement, 12 oz. bottle, each
TFS-94000-12 Oil supplement, 12 oz. bottles, case of 12



#### **Hydraulic Lifters**

Trick Flow hydraulic lifters are the perfect choice to freshen up your engine. These affordable lifters are designed to factory tolerances for a perfect fit and to provide precise oil control to keep your engine running smoothly. The retro-fit roller lifters are designed for a roller cam conversion in engines originally equipped with a hydraulic flat tappet cam.



Special length pushrods may be required.

#### **Hydraulic Flat Tappet Lifters**

TFS-21400001 Lifters, Chevy 262-454, set of 16

#### **OEM Hydraulic Roller Lifters**

TFS-21400002-16\* Lifters, Chevy 5.0L/5.7L/GM LS Gen III, set of 16

TFS-21400004-16\* Lifters, Ford 5.0L, set of 16

#### Retro-Fit Hydraulic Roller Lifters with Link Bars

TFS-21400003 Lifters, Chevy 262-400 and 348/409, set of 16

TFS-21400005 Lifters, Chevy 396-502, set of 16

TFS-21400006 Lifters, Ford 221-351W (including Boss), 351C/M-400,

set of 16

TFS-21400007 Lifters, Ford 352-428, 370-460, set of 16

\*Available individually.

#### **Adjustable Pushrod Length Checkers**

These 5/16" pushrod checkers feature over 1" of travel to help determine proper pushrod length for any application. A must-have tool for setting proper valvetrain geometry, they're made from thinwall steel and have 5/16" ball ends.

TFS-9000	Pushrod checker, 6.125" to 7.500" long, each
TFS-9001	Pushrod checker, 7.500" to 8.700" long, each
TFS-9002	Pushrod checker, 8.700" to 9.800" long, each
TFS-9003	Pushrod checker, 9.700" to 11.000" long, each
TFS-9004	Pushrod checker, 10.200" to 11.500" long, each
TFS-9005	Pushrod checker, 7.200" to 8.300" long, 5/16" cup styl

5/16" ball, each

TFS-9006 Pushrod checker, 8.350" to 9.800" long, 5/16" cup style,

3/8" ball, each

TFS-9007 Pushrod checker, 10.200" to 11.800" long, 5/16" cup style,

3/8" ball, each

TFS-9010A Replacement cup end, 5/16", each Replacement cup end, 3/8", each TFS-9011A

#### **Pro-Calibrated Adjustable Pushrod Length Checkers**

Made from high-quality steel alloy with a durable black oxide coating, Trick Flow's Pro Calibrated Adjustable Pushrod Length NEWI Checkers are the most accurate way to measure pushrod length. They work like this: The range length number on each checker represents the overall length it can measure through one full inch of extension. A laser-etched alignment line identifies each full rotation position, and grooves every .050" on the inner sleeve keeps count of the number of rotations made. For example, when a 7.800"-8.800" length checker in its shortest position is turned apart by one rotation, the length grows to 7.850" (7.800 + .050 = 7.850). Therefore, that dimension would be the correct length pushrods to order. Available in ball tip and cup tip versions from 5.800" to 12.800" overall length.

TFS-9500	Pro-Calibrated pushrod checker, ball tip, 5.800" to 6.80", each
TFS-9501	Pro-Calibrated pushrod checker, ball tip, 6.800" to 7.800", each
TFS-9502	Pro-Calibrated pushrod checker, ball tip, 7.800" to 8.800", each
TFS-9503	Pro-Calibrated pushrod checker, ball tip, 8.800" to 9.800", each
TFS-9504	Pro-Calibrated pushrod checker, ball tip, 9.800" to 10.800", each
TFS-9505	Pro-Calibrated pushrod checker, ball tip, 10.800" to 11.800", each
TFS-9506	Pro-Calibrated pushrod checker, ball tip, 11.800" to 12.800", each
TFS-9507	Pro-Calibrated pushrod checker, 5/16" cup tip, 6.800" to 7.800", each
TFS-9508	Pro-Calibrated pushrod checker, 5/16" cup tip, 7.800" to 8.800", each
TFS-9509	Pro-Calibrated pushrod checker, 5/16" cup tip, 8.800" to 9.800", each
TFS-9510	Pro-Calibrated pushrod checker, 5/16" cup tip, 9.800" to 10.800", each
TFS-9511	Pro-Calibrated pushrod checker, 5/16" cup tip, 10.800" to 11.800", each
TFS-9512	Pro-Calibrated pushrod checker, 5/16" cup tip, 11.800" to 12.800", each
TFS-9513	Replacement cup end only, 3/8" cup tip, each



#### **Chromoly Pushrods**

The proper length pushrod is critical to achieving correct valvetrain geometry. Trick Flow one-piece chromoly pushrods are available in a variety of lengths for use with any Trick Flow cylinder head as well as other OEM and

Designed specifically for high performance applications, the pushrods have the following features:

- Cold-formed from 4130 chromoly steel construction
- .080" wall thickness
- · Induction-hardened heat-treating for use with guideplates

In addition, the oil hole is closed to within .040" then drilled and chamfered to .093". This eliminates stress fractures and cracks caused by the cold-forming process.

**NOTE:** Always check the proper pushrod length for the specific application before ordering.

#### Trick Flow Chromoly 5/16" Pushrods, Set of 16

TFS-21407200	Pushrods, 7.200" long, small block Chevy with OE roller cam
TFS-21407400	Pushrods, 7.400" long, GM 4.8L/5.3L, LS1, LS2, and L92
TFS-21407800	Pushrods, 7.800" long, small block Chevy, 90° V6
TFS-21408400	Pushrods, 8.400" long, 1970-74 Ford 351C/429CJ
TFS-21408500	Pushrods, 8.500" long, 1971-72 Ford Boss 351
TFS-21408550	Pushrods, 8.550" long, 1970-98 Ford 429/460 (except SCJ)
TFS-21408650	Pushrods, 8.650" long, Ford 429 SCJ
TFS-21408700	Pushrods, 8.700" long, Ford 429 SCJ +.050"
TFS-21408750	Pushrods, 8.750" long, Ford 429 SCJ +.100"
TFS-21457000	Pushrods, 6.600" long intake/7.825" long exhaust, Chrysler 5.7L Hemi
TFS-21461000	Pushrods, 6.650" long intake/7.850" long exhaust, Chrysler 6.1L Hemi
TFS-21464000	Pushrods, 6.800" long intake/8.100" long exhaust, Chrysler 6.4L Hemi

#### Trick Flow Chromoly 3/8" Pushrods, Set of 8

TFS-21418250-8 Pushrods, 8.250" long, big block Chevy intake

TFS-21418350-8	Pushrods, 8.350" long, big block Chevy intake +.100"
TFS-21418550-8	Pushrods, 8.550" long, 1970-98 Ford 429/460 (except SCJ)
TFS-21418650-8	Pushrods, 8.650" long, tall deck big block Chevy intake
TFS-21418700-8	Pushrods, 8.700" long, Ford 429 SCJ +.050"
TFS-21418750-8	Pushrods, 8.750" long, tall deck big block Chevy intake +.100"
TFS-21418750-8	Pushrods, 8.750" long, Ford 429 SCJ +.100"
TFS-21419250-8	Pushrods, 9.250" long, big block Chevy exhaust
TFS-21419350-8	Pushrods, 9.350" long, big block Chevy exhaust +.100"
TFS-21419650-8	Pushrods, 9.650" long, tall deck big block Chevy exhaust
TFS-21419750-8	Pushrods, 9.750" long, tall deck big block Chevy exhaust +.100"

#### **How to Build a Pushrod Part Number**

Trick Flow offers more pushrod lengths than shown here. They are available in any length from 6.250"-9.000" (5/16") or 7.650"-9.950" (3/8") in .050" increments by building a pushrod part number. Just add the length desired to the end of the part number code. Here's how:

To order 5/16" pushrods use the base number: TFS-2140\_ and add the length.

For example: TFS-21406250 designates 5/16" diameter, 6.250" pushrods.

To order 3/8" pushrods use the base number: TFS-2141\_\_\_\_\_-8 and add the length.

For example: TFS-21419000-8 designates 3/8" diameter, 9.000" pushrods.

Trick Flow's camshaft degree kit will help dial in a camshaft accurately. The supplement kit for Ford 4.6L/5.4L 2V/4V contains components to make degreeing camshafts in a vehicle easier. You can find them on page 37.



#### **Track Max® Camshafts**

Get significant horsepower and torque increases with Trick Flow's Track Max camshafts. They are dyno-proven to produce a wide power curve over the entire RPM range, not just at a particular RPM point or peak. That's the kind of power that gets respect on the street and wins races at the track!





nces.							
IN THE	ulic Roll	er Camsh	afts 1	or GM LS			
Characteristics	Duration @ .050"	Valve Lift w/1.7 Ratio Rocker Arms	Lobe Sep.		Recommended Valve Spring Retainers	Recommended Valve Locks	Recommende Valve Spring Upgrade Kits
cam gear mounting and rear integral LS1/LS6 camshaft sensor	216°/220°	.560"/.560"	114°	TFS-16904-16 TFS-16306-16*	TFS-21400415 TFS-214T0425^	TFS-30600444	TFS-2500280 TFS-2500285/ TFS-2500295* TFS-2500300*
Applications: All GM LS engines. Good idle, strong midrange/top- end power, 2,500-6,300 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor	220°/224°	.575"/.575"	112°	TFS-16904-16 TFS-16306-16*	TFS-21400415 TFS-214T0425^	TFS-30600444	TFS-2500280 TFS-2500285^ TFS-2500295* TFS-2500300*
modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft	228°/230°	.585"/.585"	112°	TFS-16904-16 TFS-16306-16*	TFS-21400415 TFS-214T0425^	TFS-30600444	TFS-2500280 TFS-2500285/ TFS-2500295/ TFS-2500300/
strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft	238°/242°	.595"/.595"	112°	TFS-16904-16 TFS-16306-16*	TFS-21400415 TFS-214T0425^	TFS-30600444	TFS-2500280 TFS-2500285/ TFS-2500295/ TFS-2500300/
all GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10,51 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor	230°/238°	.625"/.625"	113°	TFS-16904-16 TFS-16306-16*	TFS-21400415 TFS-214T0425^	TFS-30600444	TFS-2500280 TFS-2500285/ TFS-2500295 <sup>2</sup> TFS-2500300 <sup>2</sup>
Track Max Hydra	ulic Rol	ler Camsh	aft fo	or GM LT1			
Characteristics		Valve Lift w/1.5 Ratio Rocker Arms	Lobe Sep.	Recommended Valve Springs	Recommended Valve Spring Retainers	Recommended Valve Locks	Recommende Valve Spring Upgrade Kit
Fair idle, strong midrange power, 1,800-5,800 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 10.25:1 minimum.	220°/227°	.530"/.530"	113°	TFS-16838-16	TFS-51400423	TFS-31400443	TFS-K16838
Track Max Hydraulic Roll	ler Cam	shafts for S	Smal	l Block Chev	rolet		
Characteristics	Duration @ .050"	Valve Lift w/1.5 Ratio Rocker Arms	Lobe Sep.	Recommended Valve Springs	Recommended Valve Spring Retainers	Recommended Valve Locks	Recommende Valve Spring Upgrade Kit
Fair idle, broad midrange power, 2,800-6,200 RPM powerband. 2,500-3,000 stall converter. Compression: 9.5:1 minimum.	230°/234°	.528"/.539"	110°	TFS-16838-16	TFS-51400423	TFS-31400443	TFS-K16838
Fair idle, broad midrange power, 2,800-6,300 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum. For use in 1987-95 OEM hydraulic roller cam engines only.	230°/234°	.530"/.540"	110°	TFS-16838-16	TFS-51400423	TFS-31400443	TFS-K16838
Rough idle, excellent top-end power, 3,200-6,800 RPM powerband. 3,000-3,500 RPM stall converter. Compression: 10:1 minimum.	246°/254°	.558"/.558"	112°	TFS-16921-16	TFS-21400410	TFS-31400443	TFS-2500200
Track Max Hydraulic Flat Tappet Camsh	aft and	Camshaft/	Lifte	r Kits for Sm	all Block Ch	evrolet	
Characteristics	Duration @ .050"	Valve Lift w/1.5 Ratio Rocker Arms	Lobe Sep.	Recommended Valve Springs	Recommended Valve Spring Retainers	Recommended Valve Locks	Recommende Valve Spring Upgrade Kits
recommended. Compression: 9:1 minimum.	212°/214°	.443"/.449"	110°	TFS-16942-16	TFS-51400423	TFS-31400443	TFS-K16942
Fair idle, strong midrange power, 2,600-6,100 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.	226°/234°	.480"/.495"	110°	TFS-16981-16	TFS-31400423	TFS-31400443	TFS-K16981
Rough idle, excellent top-end power, 3,500-6,700 RPM powerband. 3,000-3,500 RPM stall converter. Compression: 10:1 minimum.	246°/254°	.510"/.518"	112°	TFS-16838-16	TFS-51400423	TFS-31400443	TFS-K16838
	Characteristics  Applications: All GM LS engines. Excellent idle, strong midrange power, 2,000-6,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All GM LS engines. Good idle, strong midrange/topend power, 2,500-6,300 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All GM LS engines. Fair idle, good midrange/ strong top-end power, 2,500-6,500 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All GM LS engines. Fair idle, good midrange/ strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: Optimized for GM LS3/L92 engines; works with all GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Characteristics  Fair idle, strong midrange power, 1,800-5,800 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.  Track Max Hydraulic Roll  Track Max Hydraulic Roll  Characteristics  Fair idle, broad midrange power, 2,800-6,200 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.  Fair idle, broad midrange power, 2,800-6,200 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.  Fair idle, strong midrange power, 2,800-6,200 RPM powerband. 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.  Track Max Hydraulic Flat Tappet Camsimater approachment of the power p	Characteristics  Characteristics  Characteristics  Characteristics  Characteristics  Duration © .050"  Applications: All GM LS engines. Excellent idle, strong midrange power, 2,000-6,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All GM LS engines. Good idle, strong midrange/topend power, 2,500-6,300 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All GM LS engines. Fair idle, good midrange/strong top-end power, 2,500-6,500 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: All IGM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Applications: Optimized for GM LS3/L92 engines; works with all GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10.5:1 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor pick-up ring.  Track Max Hydraulic Roll  Characteristics  Duration @ .050"  Track Max Hydraulic Roller Cams  Characteristics  Duration @ .050"  Track Max Hydraulic Roller Cams  Characteristics  Duration @ .050"  Track Max Hydraulic Flat Tappet Camshaft and  Characteristics  Duration @ .050"  Track Max Hydraulic Flat Tappet Camshaft and  Characteristics  Duration @ .050"  Good idle, strong low-end torque, 2,200-5,700 RPM powerband, 2,500-3,000 RPM stall converter. Compression: 9.5:1 minimum.  Track Max Hydraulic Flat Tappet Camshaft and  Characteristics  Characteristics  Duration @ .050"	Characteristics  Charac	Track Max Hydraulic Roller Camshafts (  Characteristics  Track Max Hydraulic Roller Camshaft sensor pick-up ring.  Applications: All GM LS engines. Good idle, strong midrange/topende power, 2,500-6,300 RPM powerband, computer modification recommended. Compression: 0,51 minimum. With 3-bolt camples of the pick-up ring.  Applications: All GM LS engines. Fair idle, good midrange/strong top-end power, 2,500-6,500 RPM powerband, computer modification recommended. Compression: 0,51 minimum. With 3-bolt camples are mounting and rear integral LS1/LS6 camshaft sensor plok-up ring.  Applications: All GM LS engines. Fair idle, good midrange/strong top-end power, 2,500-6,500 RPM powerband, computer modification recommended. Compression: 10,51 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor plok-up ring.  Applications: Qptimized for GM LS3/L92 engines; works with all GM LS engines. Fair idle, good midrange/strong top-end power, 3,000-7,000 RPM powerband, computer modification recommended. Compression: 10,51 minimum. With 3-bolt cam gear mounting and rear integral LS1/LS6 camshaft sensor plok-up ring.  Characteristics  Duration (9,050")  Track Max Hydraulic Roller Camshaft for Characteristics  Duration (9,050")  Track Max Hydraulic Roller Camshaft sensor plok-up ring.  Characteristics  Duration (9,050")  Track Max Hydraulic Roller Camshaft sensor plok-up ring.  Characteristics  Duration (9,050")  Track Max Hydraulic Roller Camshaft sensor plok-up ring.  Characteristics  Duration (9,050")  Track Max Hydraulic Roller Camshaft sensor plok-up ring.  Track Max Hydraulic Roller Camshaft and Camshaft/Lifte (1,050")  Characteristics  Duration (9,050")  Track Max Hydraulic Flat Tappet	Track Max Hydraulic Roller Camshafts for GM LS  Characteristics  Character	Characteristics  Characteristics  Characteristics  Characteristics  Characteristics  Characteristics  Duration (a. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft for GM L1  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft for GM L11  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Track Max Hydraulic Roller Camshaft (b. 660° Why Provided Characteristics)  Duration (b. 660° Why Provided Characteristics)  Duration (b. 660° Why	Characteristics

#### Track Max® Camshafts (continued)

	<b>★</b> MAD		oller Gal	nsnan ior	RIG I	SIOCK CNEV	rolet			
Part Number	USA	Characteristics	Duration @ .050"	Valve Lift w/1.7 Ratio Rocker Arms	Lobe Sep.	Recommende Valve Spring			Recommended Valve Spring Upgrade Kit	
TFS-41302000	Fair idle, good mid RPM powerband. 2 Compression: 9.5:1	ange and strong top-end power, 3,000-6,200 ,500-3,000 RPM stall converter. minimum.	236°/242°	.600"/.600"	112°	TFS-16943-16	TFS-2140042	5 TFS-52400444	TFS-K16943	
	<b>★</b> MAD	Track Max® Mechanical	Roller C	amshaft fo	or Big	Block Che	vrolet			
Part Number	USA		Duration @ .050"	Valve Lift w/1.7 Ratio Rocker Arms	Lobe Sep.	Recommende Valve Spring			Recommended Valve Spring Upgrade Kit	
TFS-41404002	Rough idle, strong Stall converter reco	top-end power, 5,400-7,900 RPM powerband. mmended. Compression: 12.5:1 minimum.	285°/298°	.850"/.828"	114°	TFS-16948-16	TFS-214T065	0 TFS-54500445	TFS-2500450	
	<b>★</b> MAD	Track Max Hydraulic F	Roller Ca	mshafts f	or Fo	rd 4.6L/5.4I	_ 2V			
Part Number	USA	Characteristics	Duration @ .050"	Valve Lift w/1.7 Ratio Rocker Arms	Lobe Sep.	Recommende Valve Springs			Recommended Valve Spring Upgrade Kits	
TFS-51802001	RPM powerband. V Twisted Wedge® Se	drange power and torque, 1,500-5,000 Vorks with stock PI heads or Trick Flow ries 185 heads; tuning recommended for ance. Piston-to-valve clearance measurement appression: stock.	228°/230°	.550"/.550"	112°	TFS-16519-16	TFS-5190042	3 TFS-51900444	TFS-2500500 TFS-2500525*	
TFS-51802002	powerband. Works Wedge Series 185 performance. 3.73	i to top-end power, 1,800-6,500 RPM with stock PI heads or Trick Flow Twisted neads; tuning recommended for maximum or numerically higher gear. rrance measurement required.	234°/234°	.580"/.580"	114°	TFS-16519-16	5 TFS-5190042	3 TFS-51900444	TFS-2500500 TFS-2500525*	
	<b>★</b> MAD IN TH	Track Max Hydraulic F	Roller Ca	mshafts fo	or Sn	nall Block I	ord			
Part Number	USA		Duration @ .050"	Valve Lift w/1.6 Ratio Rocker Arms	Lobe Sep.	Recommende Valve Springs		Recommended Valve Locks	Recommended Valve Spring Upgrade Kits	
TFS-51403001		nidrange power. Aftermarket intake, heads, mended. Calibrated mass airflow meter sion: 9:1 minimum.	221°/225°	.499"/.510"	112°	TFS-16315-16	TFS-2140042	4 TFS-31400443	TFS-2500200	
TFS-51403002	or 5-speed transmi	range power, 2,500-3,000 RPM stall converter ssion. 3.55 or numerically higher gears. flow meter required. minimum.	224°/232°	.542"/.563"	112°	TFS-16315-16	TFS-2140042	4 TFS-31400443	TFS-2500200	
TFS-51403003	converter, 3.90-4.1	top-end power, 3,000-3,500 RPM stall 1 gears. Calibrated mass airflow meter sion: 10:1 minimum.	236°/248°	.574"/.595"	110°	TFS-16306-16	TFS-2140012	5 TFS-51400444	TFS-K16306	
TFS-51403004	converter. 3.90-4.1	top-end power, 3,000-3,500 RPM stall 1 gears. Calibrated mass airflow meter sion: 10:1 minimum. 7,000 maximum RPM.	242°/246°	.595"/.595"	110°	TFS-16306-16	TFS-2140012	5 TFS-51400444	TFS-K16306	
TFS-51403005	converter. 3.90-4.1	top-end power, 3,000-3500 RPM stall 1 gears. Calibrated mass airflow meter iion: 10:1 minimum. 7,200 maximum RPM.	250°/254°	.595"/.595"	110°	TFS-16306-16	TFS-2140012	5 TFS-51400444	TFS-K16306	
	★ MAD	Track Max C	amshaft	for Big Blo	ock N	<b>Nopar</b>				
Part Numb		Characteristic	s			Г	Ouration @ .050"	Valve Lift w/1.7 Rocker Arms	Lobe Sep.	
TFS-61602003 Lopey idle, good midrange to strong top-end power, 3,000-6,500 RPM powerband. Stall converter recommended. Compression: 10:1 minimum. With 3-bolt gear attachment. 234°/247° .600"/.600" 108°										

<sup>\*</sup>Roller rocker arms required

#### **Valve Spring Compressors**

If you work on engines, then you need a Trick Flow valve spring compressor. A must for servicing valve springs, retainers, and valve seals, our specially made tools easily remove valve springs—even while they're on the engine and still in the vehicle. The compressors are made from premium heat-treated steel for a long service life.

TFS-90306 Valve spring compressor, GM LS1/LS6/LS2, each
TFS-90307 Valve spring compressor, GM L92/LS3/L99/LS9, each
TFS-90518 Valve spring compressor, Ford 4.6L/5.4L 2V/4V, each









#### Trick Flow by PAC Racing Double Platinum .660" **Dual Valve Spring Kits for GM LS**

Trick Flow is always looking for ways to improve performance. When it was discovered that a better valve spring option was needed for GM LS engines, Trick Flow called on PAC Racing to help come up with a solution. The results are these polished double platinum .660" spring kits for GM LS.

The springs were engineered as a drop-in replacement that delivers the durability customers want with the valvetrain stability required for more aggressive camshafts. An added advantage is that the springs play nice with the stock rocker arms and lifters, too.

Rounding out the kits are precision-machined 7 degree valve stem locks, Viton®\* fluoroelastomer canister valve seals, valve spring I.D. locators, and the choice of chromoly steel and titanium retainers.

\*Viton® is a registered trademark of DuPont Performance Elastomers.

#### **Coil Spring Specs:**

Installed Height: 1.800"

Closed Spring Pressure: 160 lbs. @ 1.800" Installed Height Open Spring Pressure: 419 lbs. @ .660" lift

Maximum Spring Lift: .660"

Coil Bind: 1.015

TFS-2500286P Double platinum .660" valve spring kits, chromoly retainers, each TFS-2500287P Double platinum .660" valve spring kits, titanium retainers, each

TFS-16905P-16 Double platinum .660" valve springs only, set of 16



#### Trick Flow by PAC Racing Valve Springs

Valve springs compress and rebound hundreds of times a second. Make sure your next set of valve springs are built to last and built to win! Trick Flow by PAC Racing valve springs are the only springs manufactured to Trick Flow's rigorous, world-class testing standards. Every spring is CNC-coiled from high tensile-strength, extra-durable Pacaloy™ chrome-silicon steel and double shot-peened beyond Aerospace Material Specifications (AMS) reliability standards.

The Trick Flow by PAC Racing valve springs are available in four configurations to work with virtually any camshaft and valvetrain combination.

Sold in sets of 16, except for TFS-15410-24 (set of 24) and TFS-15411-32 (set of 32).

#### **Single Valve Springs**

Trick Flow by PAC Racing single valve springs have flat internal damping coils to prevent spring surge at high revs, maintaining proper spring pressure at critical load levels.

#### **Dual Valve Springs**

Trick Flow by PAC Racing dual valve springs are for more aggressive cam profiles. Choose the standard dual springs, or the dual springs with damper coils for spring surge prevention.

#### **Triple Sportsman Valve Springs**

. Trick Flow by PAC Racing triple sportsman springs are designed for bracket drag racing, with higher spring rates to withstand ultra high-revving, high-horsepower engines.

#### **Beehive Valve Springs**

Drop in a more aggressive cam without machining your spring seats! Trick Flow by PAC Racing beehive springs have heavyweight spring rates but will fit inside the stock valve seats and can be used with the stock retainers.

	Trick Flow by PAC Racing Single Valve Springs (with internal damping coils)												
			Specificati	ons		Recommended Components							
Part Number	O.D. of Outer Spring (In.)	I.D. of Outer Spring (In.)	I.D. of Inner Spring (In.)	Seat Load (Lbs./ln.)	Open Load (Lbs./ln.)	Coil Bind (In.)	Rate (Lbs./ In.)	Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Valve Spring Upgrade Kits	Application Recommendations		
TFS-16314-16	1.250	.870	.780	110 @ 1.780	300 @ 1.280	1.180	380	TFS-31400423	TFS-31400443	_	Replacement for Super 23 <sup>®</sup> cylinder heads for small block Chevrolet		
TFS-16981-16	1.254	.880	.790	110 @ 1.700	300 @ 1.250	1.150	422	TFS-31400423	TFS-31400443	TFS-K16981	Up to .500" lift @ 1.700" installed height		
TFS-16941-16	1.244	.860	.770	125 @ 1.750	350 @ 1.250	1.150	450	TFS-31400423	TFS-51400444	_	Up to .600" lift @ 1.800" installed height		
TFS-16848-16	1.255	.871	.781	110 @ 1.700	311 @ 1.200	1.150	402	TFS-31400423	TFS-31400443	_	Up to .500" lift @ 1.700" installed height		
TFS-16846-16	1.265	.865	.765	125 @ 1.750	388 @ 1.250	1.150	526	TFS-31400423	TFS-51400444	_	Up to .600" lift @ 1.800" installed height		
TFS-16910-16	1.355	.940	.851	90 @ 1.850	300 @ 1.350	1.204	418	TFS-21400410	TFS-31400443	_	Up to .550" lift @ 1.850" installed height		
TFS-16984-16	1.430	1.066	.976	110 @ 1.750	225 @ 1.250	1.125	230	TFS-51400423	TFS-31400443	_	Up to .600" lift @ 1.800" installed height		
TFS-16942-16	1.437	1.037	.947	115 @ 1.700	285 @ 1.200	1.150	340	TFS-51400423	TFS-31400443	TFS-K16942	Up to .500" lift @ 1.700" installed height		
TFS-16990-16	1.437	1.073	1.003	115 @ 1.500	240 @ 1.030	.903	266	TFS-51400423	TFS-31400443	TFS-K16990	Up to .500" lift @ 1.500" installed height		
TFS-16840-16	1.460	1.060	.970	92 @ 1.580	296 @ 1.100	1.050	425	TFS-51400423	TFS-30600444	_	Up to .500" lift @ 1.580" installed height		
TFS-16972-16	1.460	1.060	.970	109 @ 1.850	293 @ 1.250	1.146	307	TFS-51400423	TFS-31400443	TFS-K16972	Up to .600" lift @ 1.850" installed height		
TFS-16940-16	1.464	1.080	.990	95 @ 1.900	236 @ 1.300	1.189	235	TFS-51400423	TFS-31400443	_	Up to .600" lift @ 1.900" installed height		
TFS-16926-16	1.476	1.062	.972	110 @ 1.800	318 @ 1.300	1.167	416	TFS-51400423	TFS-31400443	TFS-K16926	Up to .550" lift @ 1.800" installed height		
TFS-16514-16	1.488	1.066	.976	118 @ 1.800	333 @ 1.200	1.040	358	TFS-51400423	TFS-31400443	_	Replacement for Twisted Wedge® 170, 185, 190, and 205 cylinder heads for small block Ford		

### **Trick Flow by PAC Racing Valve Springs (continued)**

	Trick Flow by PAC Racing Single Valve Springs (continued) (with internal damping coils)												
			Specificati	ions			Rec	ommended Co	omponents				
Part Number   O.D. of Outer   I.D. of Outer   Spring (In.)   Seat Load (Lbs./In.)   Coil Bind (Lbs./In.)   Spring (In.)   Spri							Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Valve Spring Upgrade Kits	Application Recommendations			
TFS-16901-16	1.495	1.081	.991	101 @ 1.650	253 @ 1.220	1.100	355	TFS-51400423	TFS-31400443	_	Up to .450" lift @ 1.650" installed height		
TFS-16839-16	1.500	1.086	.996	98 @ 1.880	316 @ 1.300	1.115	376	TFS-51400423	TFS-31400443	TFS-K16839	Up to .600" lift @ 1.880" installed height		
TFS-16911-16	1.525	1.110	1.000	127 @ 1.900	311 @ 1.400	1.110	368	TFS-21400425	TFS-52400444	TFS-K16911	Up to .600" lift @ 1.900" installed height		
TFS-16936-16	1.540	1.125	1.016	145 @ 1.900	320 @ 1.338	1.200	311	TFS-21400425	TFS-52400444	_	Up to .600" lift @ 1.900" installed height		

		MADE			Trick	Flow by	PAC R	Dual Valve Springs					
		USA	Spec	ification	S						Recommended	Components	
Part Number	O.D. of Outer Spring (In.)	I.D. of Outer Spring (In.)	I.D. of Inner Spring (In.)	Includes Damper	Seat Load (Lbs./In.)	Open Load (Lbs./In.)	Coil Bind (In.)	Rate (Lbs./In.)	Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Valve Spring Upgrade Kits	Application Recommendations	
TFS-16521-16	1.100	.816	.620	No	150 @ 1.500	290 @ .900	.850	233	TFS-52900424	TFS-52900450	_	Twisted Wedge <sup>®</sup> Race 195 cylinder heads for Ford 4.6L/5.4L 2V	
TFS-16891-16	1.212	.900	.674	No	97 @ 1.516	256 @ .970	.850	291	TFS-31400423	TFS-31400443	TFS-K16891	Buick V6 and 350 cubic inch; up to .550" lift @ 1.500" installed height	
TFS-16904-16	1.290	.950	.694	No	150 @ 1.800	400 @ 1.125	1.010	370	TFS-21400415 TFS-214T0415*	TFS-30600444	TFS-2500280 TFS-2500285*	OEM GM LS upgrade; replacement for Trick Flow GenX <sup>®</sup> LS cylinder heads	
TFS-16306-16	1.275	.891	.675	No	150 @ 1.800	420 @ 1.200	1.100	450	TFS-21400415 TFS-214T0415*	TFS-30600444	TFS-2500295 TFS-2500300*	Trick Flow GenX <sup>®</sup> LS cylinder heads with roller rocker arms	
TFS-16921-16	1.300	.895	.655	No	135 @ 1.800	400 @ 1.150	1.110	408	TFS-21400410	TFS-31400443	_	Up to .650" lift @ 1.800" installed height	
TFS-16905P-16	1.304	.950	.694	No	160 @ 1.800	425 @ 1.130	1.015	392	TFS-21400415 TFS-214T0425*	TFS-30600444	TFS-2500286P TFS-2500287P*	OEM GM LS upgrade; replacement for Trick Flow GenX <sup>®</sup> LS cylinder heads	
TFS-16893-16	1.460	1.075	.794	No	120 @ 1.875	394 @ 1.175	1.050	391	TFS-51400423	TFS-31400443	TFS-K16893	Up to .700" lift @ 1.875" installed height	
TFS-16315-16	1.460	1.074	.720	No	134 @ 1.800	405 @ 1.200	1.013	452	TFS-51400423	TFS-31400443	_	Replacement for Trick Flow Super 23 <sup>®</sup> cylinder heads for small block Chevrolet and Twisted Wedge <sup>®</sup> cylinder heads for small block Ford	
TFS-16950-16	1.464	1.080	.724	Yes	133 @ 1.900	333 @ 1.300	1.198	333	TFS-51400423	TFS-31400443	_	Up to .600" lift @ 1.900" installed height	
TFS-16838-16	1.465	1.090	.807	No	106 @ 1.688	306 @ 1.208	.906	417	TFS-51400423	TFS-31400443	TFS-K16838	Up to .650" lift @ 1.688" installed height	
TFS-16914-16	1.490	1.105	.810	No	165 @ 1.800	385 @ 1.200	1.073	367	TFS-51400423	TFS-31400443	_	Up to .600" lift @ 1.800" installed height	
TFS-16929-16	1.538	1.140	.752	Yes	157 @ 1.850	440 @ 1.200	1.090	436	TFS-51400423	TFS-52400444	_	Up to .650" lift @ 1.850" installed height	
TFS-16097-16	1.539	1.125	.731	Yes	200 @ 2.000	550 @ 1.300	1.125	500	TFS-21400425	TFS-52400444	_	Up to .700" lift @ 2.000" installed height	
TFS-16927-16	1.539	1.125	.731	Yes	200 @ 1.950	550 @ 1.250	1.125	500	TFS-21400425	TFS-52400444	_	Up to .700" lift @ 1.950" installed height	
TFS-16886-16	1.540	1.105	.700	Yes	225 @ 2.000	715 @ 1.250	1.150	653	TFS-21400424	TFS-52400445	_	Up to .750" lift @ 2.000" installed height	
TFS-16895-16	1.540	1.140	.754	Yes	144 @ 1.900	403 @ 1.300	1.125	431	TFS-21400425	TFS-52400444	_	Up to .650" lift @ 1.900" installed height	
TFS-16896-16	1.540	1.140	.754	Yes	145 @ 1.900	465 @ 1.250	1.130	492	TFS-21400425	TFS-52400444	_	Up to .650" lift @ 1.900" installed height	
TFS-16094-16	1.545	1.130	.757	Yes	175 @ 1.900	442 @ 1.275	1.190	427	TFS-21400425	TFS-52400444	_	Replacement for Trick Flow Super 23 <sup>®</sup> 215 and 230 cylinder heads for small block Chevrolet; up to .625" lift @ 1.900" install height	
TFS-16112-16	1.545	1.130	.737	Yes	140 @ 1.800	457 @ 1.175	1.130	507	TFS-21400425	TFS-52400444	_	Up to .625" lift @ 1.800" install height	
TFS-16089-16	1.550	1.135	.812	No	230 @ 2.000	580 @ 1.300	1.190	500	TFS-21400425	TFS-52400444	_	Up to .700" lift @ 2.000" installed height	
TFS-16115-16	1.550	1.125	.720	Yes	220 @ 2.050	625 @ 1.300	1.190	540	TFS-21400425	TFS-52400444	_	Up to .750" lift @ 2.050" installed height	
TFS-16928-16	1.550	1.150	.790	Yes	160 @ 1.880	389 @ 1.250	1.140	363	TFS-21400425	TFS-52400444	_	Up to .650" lift @ 1.880" installed height	
TFS-16943-16	1.550	1.135	.812	No	240 @ 1.900	625 @ 1.200	1.068	550	TFS-21400425	TFS-52400444	TFS-K16943	Up to .700" lift @ 1.900" installed height	
TFS-16955-16	1.550	1.135	.812	No	240 @ 2.000	608 @ 1.300	1.190	525	TFS-21400425	TFS-52400444	_	Up to .700" lift @ 2.000" installed height	
TFS-16324-16	1.550	1.136	.750	Yes	215 @ 1.950	550 @ 1.270	1.100	460	TFS-21400425	TFS-52400444	_	Replacement for Trick Flow Super 23 <sup>®</sup> 215 and 230 cylinder heads for small block Chevrole	
TFS-16935-16	1.555	1.140	.747	Yes	194 @ 1.950	500 @ 1.300	1.150	469	TFS-21400425	TFS-52400444	_	Up to .700" lift @ 1.950" installed height	

<sup>\*</sup>Titanium retainers



### Trick Flow by PAC Racing Valve Springs (continued)

	Trick Flow by PAC Racing Dual Valve Springs (continued)												
		<u>USA</u>	Spec	ification	s	Recommended Components							
Part Number	O.D. of Outer Spring (In.)	I.D. of Outer Spring (In.)	I.D. of Inner Spring (In.)	Includes Damper	Seat Load (Lbs./ln.)	Open Load (Lbs./In.)	Coil Bind (In.)	Rate (Lbs./In.)	Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Valve Spring Upgrade Kits	Application Recommendations	
TFS-16318-16	1.560	1.136	.750	Yes	240 @ 2.000	600 @ 1.280	1.100	500	TFS-214T0525*	TFS-52400445	_	Replacement for Trick Flow Ultra 18 <sup>®</sup> 250 cylinder heads for small block Chevrolet and Twisted Wedge® Race cylinder heads for small block Ford	
TFS-16944-16	1.570	1.120	.796	No	190 @ 1.950	710 @ 1.250	1.045	742	TFS-21400425	TFS-52400444	_	Up to .800" lift @ 1.950" installed height	
TFS-16951-16	1.620	1.170	.846	No	230 @ 1.950	710 @ 1.200	1.045	640	TFS-214T0520*	TFS-52400444	_	Up to .800" lift @ 1.950" installed height	
TFS-16099-16	1.625	1.175	.769	Yes	250 @ 2.050	673 @ 1.300	1.211	564	TFS-214T0520*	TFS-52400444	_	Up to .750" lift @ 2.050" installed height	
TFS-16998-16	1.635	1.185	.779	Yes	250 @ 1.900	728 @ 1.200	1.090	682	TFS-214T0520*	TFS-52400444	_	Up to .700" lift @ 1.900" installed height	
TFS-16414-16	1.640	1.191	.860	Yes	250 @ 2.000	800 @ 1.150	1.050	650	TFS-214T0620*	TFS-52400444	_	Replacement for Trick Flow PowerOval <sup>®</sup> 280 and PowerPort <sup>®</sup> 320 cylinder heads for big block Chevrolet	
TFS-16959-16	1.645	1.195	.871	No	207 @ 2.050	671 @ 1.250	1.130	580	TFS-214T0620*	TFS-52400444	_	Up to .800" lift @ 2.050" installed height	

	Trick Flow by PAC Racing Triple Sportsman Valve Springs									
<b>USA</b> Specifications						Recommended Components				
Part Number	O.D. of Outer Spring (In.)	I.D. of Outer Spring (In.)	I.D. of Inner Spring (In.)	Seat Load (Lbs./ln.)	Open Load (Lbs./ln.)	Coil Bind (In.)	Rate (Lbs./ In.)	Valve Spring Retainers (Titanium)	Valve Stem Locks	Application Recommendations
TFS-16946-16	1.645	1.195	.635	250 @ 2.050	801 @ 1.250	1.130	688	TFS-214T0630	TFS-52400444	Up to .800" lift @ 2.050" installed height
TFS-16947-16	1.645	1.195	.635	290 @ 2.070	835 @ 1.270	1.130	688	TFS-214T0630	TFS-52400444	Up to .850" lift @ 2.070" installed height
TFS-16948-16	1.645	1.195	.635	332 @ 2.100	950 @ 1.200	1.130	688	TFS-214T0630	TFS-52400444	Big block Chevrolet and Chrysler with mechanical roller camshafts up to .900" lift @ 2.100" installed height

	Trick Flow by PAC Racing Beehive Valve Springs										
	U:	<b>SA</b> Specif	ications				Recommended Components				
Part Number	O.D. of Outer Spring* (In.)	I.D. of Outer Spring* (In.)	Seat Load (Lbs./In.)	Open Load (Lbs./In.)	Coil Bind (In.)	Rate (Lbs./ In.)	Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Valve Spring Upgrade Kits	Application Recommendations	
TFS-16801-32	T: .862 B: 1.025	T: .537 B: .700	80 @ 1.575	200 @ 1.000	.943	209	Use factory retainers	Use factory locks	_	Ford 5.0L DOHC 4V with OEM VVT; up to .575" lift	
TFS-15411-32	T: .873 B: 1.061	T: .510 B: .698	115 @ 1.600	300 @ 1.000	.960	308	Use factory retainers	Use factory locks	_	Ford 5.0L DOHC 4V with locked-out VVT; up to .600" lift	
TFS-15410-24	T: .930 B: 1.025	T: .567 B: .662	105 @ 1.670	270 @ 1.120	1.060	300	Use factory retainers	TFS-51900444	_	Ford 4.6L/5.4L 3V; up to .550" lift @ 1.670"	
TFS-16519-16	T: .940 B: 1.050	T: .640 B: .750	90 @ 1.600	205 @ 1.020	.980	209	TFS-51900423	TFS-51900444	TFS-2500525	Ford 4.6L/5.4L 2V; up to .580" lift @ 1.600"	
TFS-16123-32	T: .943 B: 1.105	T: .580 B: .742	90 @ 1.470	252 @ 0.970	.900	324	TFS-21400309	TFS-51900444	_	Ford 4.6L/5.4L 4V	
TFS-16213-16	T: .959 B: 1.061	T: .636 B: .738	80 @ 1.640	185 @ 1.090	1.020	191	TFS-51900423	TFS-51900444	_	Ford 4.6L/5.4L 2V	
TFS-16213-24	T: .959 B: 1.061	T: .636 B: .738	80 @ 1.640	185 @ 1.090	1.020	191	Use factory retainers	Use factory locks	_	Ford 4.6L/5.4L 3V	
TFS-16125-16	T: 1.013 B: 1.101	T: .650 B: .738	125 @ 1.600	275 @ 1.020	.970	258	TFS-51900423	TFS-51900444	TFS-2500525	Ford 4.6L/5.4L 2V; up to .550" lift @ 1.570"	
TFS-16125-24	T: 1.013 B: 1.101	T: .650 B: .738	120 @ 1.570	275 @ 1.020	.970	258	TFS-51900423	TFS-51900444	_	Ford 4.6L/5.4L 3V; up to .550" lift @ 1.570"	
TFS-16125-32	T: 1.013 B: 1.101	T: .650 B: .738	120 @ 1.570	275 @ 1.020	.970	258	TFS-51900423	TFS-51900444	_	Ford 4.6L/5.4L 4V; up to .550" lift @ 1.570"	
TFS-16235-16	T: 1.035 B: 1.210	T: .630 B: .805	135 @ 1.800	350 @ 1.200	1.160	408	Use factory retainers	Use factory locks	_	No machining required for small block Chrysler; up to .600" lift @ 1.800" installed height	
TFS-16915-16	T: 1.055 B: 1.290	T: .650 B: .885	105@ 1.800	293 @ 1.200	1.140	313	Use factory retainers	Use factory locks	_	Upgrade for GM LS and small block Chevrolet with up to .610" lift	
TFS-16918-16	T: 1.055 B: 1.290	T: .650 B: .885	130 @ 1.800	318 @ 1.200	1.140	313	Use factory retainers	Use factory locks	_	Upgrade for GM LS and small block Chevrolet with up to .610" lift	
TFS-16120-16	T: 1.095 B: 1.445	T: .650 B: 1.000	155 @ 1.880	377 @ 1.280	1.210	370	7°: TFS-21400310 10°: TFS-21400307	7°: TFS-51400444 10°: TFS-52400444	_	Small block Ford; big block Buick, Chevrolet, and Ford	
TFS-16841-16	T: 1.295 B: 1.450	T: .859 B: 1.014	120 @ 1.940	375 @ 1.380	1.316	455	Use factory retainers	Use factory locks	_	1985-95 small block Ford; up to .560" lift @ 1.940" installed height	
TFS-16982-16	T: 1.454 B: 1.250	T: 1.071 B: .880	100 @ 1.750	290 @ 1.225	1.100	362	TFS-51400423	TFS-31400443	_	Up to .550" lift @ 1.750" installed height	

<sup>\*</sup>I.D./O.D.: T=Top, B=Bottom

#### Trick Flow by PAC Racing Performance Valve Spring Upgrade Kits

Installing a new camshaft is a sure way to improve horsepower—just remember that the rest of the valvetrain must be upgraded to support it. These Trick Flow by PAC Racing performance valve spring upgrade kits include the components you need to keep your engine running in tip-top shape after a cam swap. Each kit features high-quality Trick Flow by PAC Racing Pacaloy™ valve springs, hardened chromoly steel or titanium retainers, and precision machined steel valve locks.



	ieer varve roc		Tric	k Flow h	v PAC I	Racino	Performano	e Valve S	nrina IIn	urade K	its
Kit Part Number	Spring Part Number	Spring Style	Seat Load (Lbs./ln.)	Open Load (Lbs./In.)	Coil Bind (In.)	Rate (Lbs./ In.)	Valve Spring Retainers (Chromoly Steel)	Valve Stem Locks	Lock Type	Max. Lift (In.)	Application Recommendations
TFS-2500100	TFS-16514-16	Single	118 @ 1.800	330 @ 1.200	1.040	358	TFS-21400424	TFS-31400443	7°, 11/32"	.540	OEM Ford 289-351W cast iron cylinder heads
TFS-2500200	TFS-16315-16	Dual	134 @ 1.800	405 @ 1.200	1.013	452	TFS-51400423	TFS-52400444	10°, 11/32"	.600	Upgrade Trick Flow Twisted Wedge <sup>®</sup> 170 cylinder heads to optional high lift cam specifications
TFS-2500280	TFS-16904-16	Dual	150 @ 1.800	372 @ 1.200	1.010	370	TFS-21400415	TFS-30600444	7°, 8mm	.650	OEM GM LS cylinder heads; chromoly retainers
TFS-2500285	TFS-16904-16	Dual	150 @ 1.800	372 @ 1.200	1.010	370	TFS-214T0425*	TFS-30600444	7°, 8mm	.650	OEM GM LS cylinder heads; titanium retainers
TFS-2500286	TFS-16905-16	Dual	160 @ 1.800	425 @ 1.130	1.050	392	TFS-21400415	TFS-30600444	7°, 8mm	.660	OEM GM LS cylinder heads; chromoly retainers
TFS-2500286P	TFS-16905P-16	Dual	160 @ 1.800	425 @ 1.130	1.050	392	TFS-21400415	TFS-30600444	7°, 8mm	.660	OEM GM LS cylinder heads; chromoly retainers
TFS-2500287	TFS-16905-16	Dual	160 @ 1.800	425 @ 1.130	1.050	392	TFS-214T0425*	TFS-30600444	7°, 8mm	.660	OEM GM LS cylinder heads; titanium retainers
TFS-2500287P	TFS-16905P-16	Dual	160 @ 1.800	425 @ 1.130	1.050	392	TFS-214T0425*	TFS-30600444	7°, 8mm	.660	OEM GM LS cylinder heads; titanium retainers
TFS-2500289	TFS-16905-16	Dual	160 @ 1.800	425 @ 1.130	1.050	392	TFS-214T0427*	TFS-30600444	7°, 8mm	.660	OEM GM LS9 cylinder heads; titanium retainers
TFS-2500295	TFS-16306-16	Dual	150 @ 1.800	420 @ 1.200	1.100	450	TFS-21400415	TFS-30600444	7°, 8mm	.650	OEM GM LS cylinder heads; chromoly retainers
TFS-2500300	TFS-16306-16	Dual	150 @ 1.800	420 @ 1.200	1.100	450	TFS-214T0425*	TFS-30600445	7°, 8mm	.650	OEM GM LS cylinder heads; titanium retainers
TFS-2500301	TFS-16917-16	Dual	155 @ 1.800	436 @ 1.150	1.000	433	TFS-214T0425*	TFS-30600444	7°, 8mm	.700	OEM GM LS cylinder heads; titanium retainers, .505" I.D. locators
TFS-2500302	TFS-16917-16	Dual	155 @ 1.800	436 @ 1.150	1.000	433	TFS-214T0425*	TFS-30600444	7°, 8mm	.700	OEM GM LS cylinder heads; titanium retainers, .570" I.D. locators
TFS-2500305	TFS-16208-16	Dual	160 @ 1.800	482 @ 1.100	1.000	460	TFS-214T0425*	TFS-30600444	7°, 8mm	.750	OEM GM LS cylinder heads; titanium retainers, .505* I.D. locators
TFS-2500306	TFS-16208-16	Dual	160 @ 1.800	482 @ 1.100	1.000	460	TFS-214T0425*	TFS-30600444	7°, 8mm	.750	OEM GM LS cylinder heads; titanium retainers, .570" I.D. locators
TFS-2500400	TFS-16921-16	Dual	135 @ 1.800	400 @ 1.200	1.100	442	TFS-214T0410	TFS-30600444	7°, 8mm	.700	Trick Flow GenX <sup>®</sup> LS cylinder heads; titanium retainers
TFS-2500500	TFS-16519-16	Beehive	90 @ 1.600	205 @ 1.020	.980	209	TFS-51900423	TFS-51900444	7°, 7mm	.600	OEM Ford 4.6L/5.4L 2V, naturally aspirated engines
TFS-2500525	TFS-16125-16	Beehive	125 @ 1.570	275 @ 1.020	.970	258	TFS-51900423	TFS-51900444	7°, 7mm	.580	OEM Ford 4.6L/5.4L 2V, forced induction engines or Trick Flow Twisted Wedge <sup>®</sup> 185 cylinder heads
TFS-2500526	TFS-16521-16	Dual	150 @ 1.500	290 @ .900	.850	233	TFS-52900423	TFS-51900444	7°, 7mm	.650	Upgrades one pair of Trick Flow Twisted Wedge Track Heat <sup>®</sup> cylinder heads with 90/125 lb. springs to Twisted Wedge Track Heat 185 with 150 lb. dual springs specifications
TFS-K16306	TFS-16306-16	Dual	150 @ 1.800	438 @ 1.200	1.100	448	TFS-21400125	TFS-51400444	7°, 11/32"	.650	Up to .650 lift @ 1.800" installed height
TFS-K16838	TFS-16838-16	Dual	106 @ 1.688	306 @ 1.208	.960	417	TFS-51400423	TFS-31400443	7°, 11/32"	.650	Up to .650" lift @ 1.688" installed height
TFS-K16839	TFS-16839-16	Single	98 @ 1.880	316 @ 1.300	1.115	376	TFS-51400423	TFS-31400443	7°, 11/32"	.600	Up to .600" lift @ 1.880" installed height
TFS-K16891	TFS-16891-16	Dual	97 @ 1.516	256 @ .970	.850	291	TFS-31400423	TFS-31400443	7°, 11/32"	.550	Buick V6 and 350 cubic inch; up to .550" lift with 1.500" installed height
TFS-K16893	TFS-16893-16	Dual	120 @ 1.875	394 @ 1.175	1.050	391	TFS-51400423	TFS-31400443	7°, 11/32"	.700	Up to .700" lift @ 1.875" installed height
TFS-K16911	TFS-16911-16	Single	127 @ 1.900	311 @ 1.400	1.110	368	TFS-21400425	TFS-52400444	10°, 11/32"	.600	Up to .600" lift @ 1.900" installed height
TFS-K16926	TFS-16926-16	Single	110 @ 1.800	318 @ 1.300	1.167	416	TFS-51400423	TFS-31400443	7°, 11/32"	.550	Up to .550" lift @ 1.800" installed height
TFS-K16942	TFS-16942-16	Single	115 @ 1.700	285 @ 1.200	1.150	340	TFS-51400423	TFS-31400443	7°, 11/32"	.500	Up to .500" lift @ 1.700" installed height
TFS-K16943	TFS-16943-16	Dual	240 @ 1.900	625 @ 1.200	1.068	550	TFS-21400425	TFS-52400444	10°, 11/32"	.700	Up to .700" lift @ 1.900" installed height
TFS-K16972	TFS-16972-16	Single	109 @ 1.850	293 @ 1.250	1.146	307	TFS-51400423	TFS-31400443	7°, 11/32"	.600	Up to .600" lift @ 1.850" installed height
TFS-K16981	TFS-16981-16	Single	110 @ 1.700	300 @ 1.250	1.150	422	TFS-31400423	TFS-31400443	7°, 11/32"	.500	Up to .500" lift @ 1.700" installed height
TFS-K16990	TFS-16990-16	Single	115 @ 1.500	240 @ 1.030	.930	266	TFS-51400423	TFS-31400443	7°, 11/32"	.500	Up to .500" lift @ 1.500" installed height
Titanium retaine	. ro										





#### **Valve Spring Retainers, Spring Cups, Seals,** I.D. Locators, and Spring Shims

Trick Flow valve spring retainers, valve spring cups, spring shims, and I.D. locators are made from 4140 chromoly steel, through-hardened for long life, and black oxide coated. Trick Flow titanium valve spring retainers substantially reduce weight and are incredibly strong to safely and reliably

TFS-51900423

TFS-52900423

rev faster. Trick Flow Viton®\* fluoroelastomer valve stem seals feature a posi-stop design to prevent oil from leaking into the valve guides. For use with all cast iron and aluminum cylinder heads.

.880"

.980

.620

.805

.805

.500'

.610'

.610

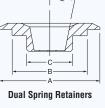
\*Viton is a registered trademark of DuPont Performance Elastomers.

7mm

7mm, 3 groove

7mm, 1 groove





Dual Spring Retainers
-E

**Triple Spring Retainers** 

	Valve Spring Retainers, Sets of 16									
	Steel									
Part Number	Spring Description	Valve Spring Max. Dia.	Valve Stem Size	Α	В	C	D	Е		
TFS-21400120	Dual spring	1.300"	11/32"	1.160"	.880"	.675"	_	7°		
TFS-21400125	Dual spring +.050	1.300"	11/32"	1.160"	.880"	.675"	_	7°		
TFS-21400410	GM LS, Dual spring	1.300"	8mm	1.160"	.880"	.675"	_	7°		
TFS-21400415	GM LS, Dual spring +.050	1.300"	8mm	1.160"	.880"	.675"	_	7°		
TFS-21400424	Dual spring	1.437"-1.500"	11/32"	1.400"	1.050"	.690"	_	10°		
TFS-21400425	Dual spring	1.550"	11/32"	1.500"	1.115"	.690"	_	10°		
TFS-31400423	Single spring	1.300"	11/32"	1.187"	.850"	.650"	_	7°		
TFS-30300423	Single spring +.050	1.300"	11/32"	1.187"	.850"	.650"	_	7°		
TFS-41400423	Dual spring +.050	1.550"	11/32"	1.500"	1.115"	.690"	_	10°		
TFS-51400423	Dual spring	1.437"-1.500"	11/32"	1.375"	1.060"	.675"	_	7°		

1.000

1.100

1.100

Hamum										
Part Number	Spring Description	Valve Spring Max. Dia.	Valve Stem Size	Α	В	C	D	E		
TFS-214T0125	Dual spring +.050	1.300"	11/32"	1.160"	.880"	.675"	_	7°		
TFS-214T0410	Dual spring	1.300"	8mm	1.240"	.880"	.615"	_	7°		
TFS-214T0415	GM LS, Dual spring	1.300"	8mm	1.160"	.880"	.675"	_	7°		
TFS-214T0420	Dual spring	1.437"-1.500"	11/32"	1.442"	1.065"	.705"	_	10°		
TFS-214T0425	GM LS, Dual spring, +.050	1.300"	8mm	1.160"	.880"	.675"	_	7°		
TFS-214T0520	Dual spring	1.500"-1.550"	11/32"	1.500"	1.110"	.690"	_	10°		
TFS-214T0525	Dual spring +.050	1.500"-1.550"	11/32"	1.500"	1.110"	.710"	_	10°		
TFS-214T0620	Dual spring	1.625"	11/32"	1.500"	1.180"	.765"	_	10°		
TFS-214T0630	Triple spring	1.625"	11/32"	1.500"	1.180"	.870"	.635"	10°		
TFS-214T0650	Triple spring	1.625"	11/32"	1.500"	1.195"	.875"	.635"	10°		





<b>★</b> MADE N THE				Valve Sp	ring Cups
USA	Part Number	Outer Diameter	Inner Diameter	Max Spring O D	Overall Thickn

Single spring

Dual spring

Dual spring

1	Part Number	Outer Diameter	Inner Diameter	Max. Spring O.D.	Overall Thickness	Shim Thickness	Fits Valve Guide O.D.	Quantity
	TFS-52900434	1.175"	.620"	1.100"	.280"	.100"	.500"	8
	TFS-52900444	1.175"	.620"	1.100"	.180"	.045"	.500"	8
Г	TFS-31400433	1.415"	.505"	1.270"	.180"	.060"	.500"	16
Г	TFS-51400434	1.610"	.640"	1.480"	.180"	.060"	.560"	16
Г	TFS-21400426	1.670"	.705"	1.560"	.180"	.060"	.560"	16
Г	TES-41400434	1 7/15"	630"	1 640"	180"	060"	560"	16



Valve Seal

	Valve Stem Seals									
Part Number	Outer Diameter	Inner Diameter	Overall Thickness	Fits Valve Guide O.D.	Quantity					
TFS-30400454	.625"	11/32"	.500"	.500"	16					
TFS-30600455	.600"	8mm	.500"	.500"	16					
TFS-51900454	.700"	7mm	.640"	.500"	8					
TFS-52400454	.640"	11/32"	.575"	.530"	16					
TFS-52900454	.600"	7mm	.575"	.495"	8					
TEC EAEOOAEA	E 401	0	E001	FOOI	0					





★ MADE
USA

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	COA	L

	Valv	e Spring Shims, Set o	1
Part Number	Outer Diameter	Inner Diameter	Ī
TFS-31500432	1.460"	.680"	Г

Max. Spring O.D. **Overall Thickness** 1.500 .060 **Valve Spring I.D. Locators. Sets of 16** 



Spring Shim

		$\star$
USA	SA	U

1	Part Number	Outer Diameter	Inner Diameter	Max. Spring O.D.	Overall Thickness	Thickness	Guide O.D.
	TFS-21400442	1.270"	.570"	1.300"	.200"	.050"	.560"
	TFS-21400443	1.270"	.505"	1.300"	.200"	.050"	.500"
	TFS-21400440	1.500"	.570"	1.550"	.180"	.053"	.560"
	TFS-21400441	1.740"	.570"	1.620"	.180"	.060"	.560"



Valve Stem Locks

#### Valve Stem Locks

Trick Flow valve stem locks are perfect for upgrades and rebuilds. They are precision machined from hardened chromoly steel for long lasting durability and are available in many popular sizes.

Steel	<b>Valve Stem Loc</b> l	k Specifications	s, Sets of 16			
Valve Locks	Description	Valve Stem Size	Groove Type	Color		
TFS-30600444	GM LS standard	8mm	Single groove	Black		
TFS-31400444	7° +.050"	11/32"	Square	Gold		
TFS-51400444	7° standard	11/32"	Square	Black		
TFS-51900444	7° Ford 4.6L/5.4L	7mm	Triple groove	Silver		
TFS-52400444	10° standard	11/32"	Square	Black		
TFS-52400445	10°050"	11/32"	Square	Black		
TFS-54500444	10° standard	5/16"	Single beadlock	Black		
TFS-54500445	10° standard	11/32"	Single beadlock	Black		



### and Accessories

and versatility. The .250" diameter, double-row true roller chain and black oxide-coated crank sprocket are heat-treated for unrivaled strength. The CNC-machined cam gear has nine crank sprocket keyways for zero and +/- 2°, 4°, 6°, or 8° timing adjustments. The timing marks are laser-etched.

The timing chain damper for GM LS provides a small amount of tension on the timing chain to keep it from "whipping" during gear changes and damaging the engine. It's manufactured from durable OE-quality plastic and includes mounting bolts. The damper fits non-VVT (variable valve timing) GM LS2/L92/LS3 engines, and it should be replaced when changing camshafts or timing chain sets.

The GM LS timing chain damper adapter bracket allows the use of LS2 timing chain dampers on any GM LS engine block. The bracket uses the three lower cam/thrust retainer plate bolts for attachment. The bracket can also be used with aftermarket LS2 timing chain dampers (such as TFS-30675540) with the included hardware.

Timing chain damper, GM LS2/LS92/LS3 non-VVT engines, each
Timing chain damper adapter bracket, GM LS, each
Timing chain damper and adapter bracket kit, each
Timing chain set, LS1, each
Timing chain set, LS2, each
Timing chain set, 58x/4x camshaft sensor, 1-bolt, L92/LS3, each
Timing chain set, 58x/4x camshaft sensor, 3-bolt, L92/LS3, each
Timing chain set, Chevrolet 262-400, each
Timing chain set, Chevrolet 396-454, each
Timing chain set, Ford 351C/400, each
Timing chain set, Ford 255-351W, each
Timing chain set, Ford 429/460, each
Timing chain set, Ford 390-428, each
Timing chain set, Chrysler 318-360, each
Timing chain set, Chrysler 383-440, each

#### Track Max® **Underdrive Harmonic Dampers**

Trick Flow's underdrive harmonic dampers have many of the same features as our harmonic dampers-SFI 18.1 safety rating, carbon steel construction, injection-molded and bonded elastomer, and corrosion-resistant black powdercoat finish—but are underdriven to increase horsepower by reducing the amount of power required to drive external accessories.



Underdrive damper, 1998-2002 5.7L Chevrolet/Pontiac
Camaro/Firebird; 2004-06 5.7L/6.0L Pontiac GTO,
25% underdrive, each
Underdrive damper, 1997-2006 5.7L/6.0L Chevrolet Corvette,
25% underdrive, each
Underdrive damper, 1999-2006 4.8L-6.0L trucks/SUVs,
25% underdrive, each
Underdrive damper, 2005-08 5.7L Chrysler 300C;
Dodge Magnum/Charger, 20% underdrive, each
Underdrive damper, 2003-08 5.7L Dodge Ram 1500-3500/Durango,

#### Track Max® Harmonic Dampers

Put Trick Flow's advanced engineering to work for you with a Track Max harmonic damper. Engineered for safety and power, these SFI 18.1 rated, carbon steel dampers contain an injection-molded and bonded elastomer and come with removable counterweights. They also have engraved timing marks for easy adjustment and a corrosion-resistant black powdercoat finish for durability.

TFS-19000	Damper, Chevrolet 283-350, internal balance, each
TFS-19001	Damper, Chevrolet 400, external balance, each
TFS-19002	Damper, Chevrolet 396-427, internal balance, each
TFS-19003	Damper, Chevrolet 454, external balance, each
TFS-19004	Damper, 1997-2002 5.7L Chevrolet/Pontiac Camaro/Firebird;
	2005-06 6.0L Pontiac GTO, each
TFS-19005	Damper, 1997-2007 5.7L/6.0L Chevrolet Corvette, each
TFS-19006	Damper, Ford 289-351W (except 5.0L), 28 ounce
	external balance, each
TFS-19006-W	Counterweight, Ford 289-351W (except 5.0L), 28 ounce
	external balance, bolt-on, each
TFS-19007	Damper, 1981-2001 Ford 5.0L, 50 ounce external balance, each
TFS-19008	Damper, Ford 429/460, internal/external balance, each
TFS-19009	Damper, 1996-2004 Ford 4.6L 2V, external balance, each
TFS-19010	Damper, Chrysler 273-360, internal balance, each
TFS-19011*	Damper, Chrysler 318-360, external balance, each
TFS-19012	Damper, Chrysler 383-440, neutral balance, each

\*Requires 1971 and later design timing cover.



#### Track Max® **Underdrive Harmonic Damper and Pulley Kits** for Ford 4.6L 2V/3V/4V

Trick Flow assembled these Track Max underdrive harmonic damper and pulley kits just for the Ford 4.6L. The kits start with an underdrive damper, then Trick Flow adds black powdercoated steel pulleys for the water pump and alternator to protect those accessories from high-speed burnout while allowing more power to go to the wheels.

TFS-18009	Underdrive damper/pulley kit, 1996-2000 Ford 4.6L 2V/4V,
	with long water pump, 25% underdrive, each
TFS-18010	Underdrive damper/pulley kit, 2001-04 Ford 4.6L 2V/4V,
	with short water pump, 25% underdrive, each
TFS-18011	Underdrive damper/pulley kit, 2005-07 Ford 4.6L 3V,
	25% underdrive, each



20% underdrive, each



TFS-20000-L

#### Throttle Cable Mounting Brackets, Regulator Brackets, and Linkage Adapters

Crafted from black anodized billet aluminum, these Trick Flow throttle cable brackets make carb installation look clean and perform great. All of the hardware you need is included (including dual return springs!) and installation is easy as mounting the appropriate bracket to the base of your carburetor. The brackets are compatible with most square bore and Holley Dominator-style carburetor designs and transmission kickdown cables.

Also available are fuel pressure regulator brackets and linkage adapters made from the same great-looking black anodized aluminum as the cable brackets. The regulator brackets mount to the passenger side of a carburetor to make plumbing easy and reduce the distance of the fuel lines to the float bowls. They'll clear throttle linkages, electric and manual chokes, and vacuum ports. The linkage adapters allow you to easily attach the throttle cable to the mounting bracket on vehicles equipped with Ford or Lokar-style throttle cables—no fabrication required. Mounting hardware included.

#### **Throttle Cable Mounting Brackets**

TFS-20000 Throttle cable bracket, square bore carburetor, each
TFS-20005 Throttle cable bracket, Holley Dominator carburetor, each

#### **Throttle Cable Linkage Adapters**

TFS-20000-F Linkage adapter, for Ford-style throttle cables, 5/16" slotted hole with 1/4" bolt tab, each
TFS-20000-L Linkage adapter, for Lokar-style throttle cables, 5/16" slotted hole, each

#### **Fuel Pressure Regulator Brackets**

TFS-20010 Regulator bracket, square bore carburetor

with Holley regulator, each

TFS-20011 Regulator bracket, square bore carburetor

with Aeromotive regulator, each

TFS-20020 Regulator bracket, Holley Dominator carburetor

with Holley regulator, each

TFS-20021 Regulator bracket, Holley Dominator carburetor

with Aeromotive regulator, each



TFS-HAT-BK Ball cap, Trick Flow Racing, black, each TFS-HAT-KH Ball cap, Trick Flow Racing, khaki, each

TFS-P201 Ball cap, Ultimate Bolt-On Performance!™, black, each



Give your carburetor a little more space for a noticeable power boost with a premium quality Trick Flow carburetor spacer.

The unique, CNC-ported exit shape on Trick Flow's four-hole carburetor spacers smooth the airflow between the bottom of the carburetor and the intake manifold plenum for more torque and horsepower. Available in two versions, phenolic/composite and billet aluminum, they fit Holley 4150 and other square bore-style carbs.

The open-style spacer for Holley Dominator carbs features a cloverleaf design that increases power in the mid-to-upper RPM range.

The spacers are 1" thick and come complete with mounting studs and gaskets.

TFS-2141501B Billet aluminum spacer, black anodized, square bore

carburetors, each

TFS-2141501C Phenolic/composite spacer, square bore carburetors, each TFS-2145001C Phenolic/composite spacer, Holley Dominator carburetors, each



#### **Phenolic TBI Spacer Kits for Trucks**

Increase pulling power and enhance throttle response without sacrificing drivability with Trick Flow's 1" tall phenolic throttle body spacers. The spacers improve both low-end power and fuel economy, and come with gaskets and installation hardware. Emissions-legal under CARB E.O. #D-369-17.

TFS-30620001 TBI Spacer for 1999-2001 4.8L-6.0L Chevy/GMC trucks, each
TFS-30620002 TBI Spacer for 2001-02 8.1L and 2002-03 4.8L-6.0L
Chevy/GMC trucks, each
TFS-31520001 TBI Spacer for 1986-92 4.3L-5.7L Chevy/GMC trucks, each

TFS-31520001
TBI Spacer for 1993-95 4.3L-5.7L Chevy/GMC trucks, each
TFS-31520003
TBI Spacer for 1996-2003 4.3L Chevy/GMC trucks, each
TFS-31520004
TBI Spacer for 1996-99 5.0L/5.7L Chevy/GMC trucks, each
TFS-51620001
TBI Spacer for 1997-2003 4.6L Ford F-150/Expedition, each
TFS-51620002
TBI Spacer for 1997-2003 5.4L Ford F-150/Expedition, each

TFS-61520001 TBI Spacer for 1992-2001 3.9L-5.9L Dodge Ram/Dakota/Durango, each

TFS-27001

#### **TFX™ Bypass Fuel Pressure Regulators**

Trick Flow TFX universal bypass fuel pressure regulators are ideal for applications where precise fuel control is required. The Type 1 regulator can be adjusted from 3-20 psi with the standard pressure spring (perfect for carburetors) or from 20-60 psi after installing the included high-pressure spring (EFI systems). The Type 2 regulator is designed to provide total control of the fuel pressure settings on EFI-equipped

cars. This regulator has a -6 AN O-ring boss inlet, outlet, and return fittings, a 1/8" NPT gauge port, and can be adjusted from 30-70 psi. Both regulators include a boost reference port that raises fuel pressure on a 1:1 ratio. Like our other TFX fuel system components, the regulators are black anodized for stealthy looks and corrosion resistance.

Fuel pressure regulator, Type 1, 3-60 psi, each TFS-27001 TFS-5158REG1 Fuel pressure regulator, Type 2, 30-70 psi, each



#### **TFX™ Inline Fuel Filters**

Trick Flow TFX inline fuel filters keep fuel clean without restricting it—just what your high performance engine requires. The black anodized billet aluminum filters can handle up to 300 psi of fuel pressure and 1,000 horsepower. Available with your choice of 10, 40, or 100 micron elements and with -6, -8, or -10 AN male inlet and outlet fittings.



TFS-23000

TFS-23000 Inline filter. -6 AN. 40 micron element. 1.250" x 4.000". each TFS-23001 Inline filter, -8 AN, 40 micron element, 1.250" x 4.000", each TFS-23002 Inline filter. -8 AN. 10 micron element. 1.750" x 6.500". each TFS-23003 Inline filter, -10 AN, 10 micron element, 1.750" x 6.500", each TFS-23004 Inline filter, -8 AN, 100 micron element, 1.750" x 6.250", each TFS-23005 Inline filter, -10 AN, 100 micron element, 1.750" x 6.250", each TFS-RF010 Replacement element, 10 micron, each

TFS-RF040 Replacement element, 40 micron, each TFS-RF100 Replacement element, 100 micron, each

#### **TFX™ Canister Fuel Filter**

Trick Flow's TFX billet aluminum, high-flow canister-style fuel filter can handle the pressures of the most extreme high performance carbureted or fuel injected fuel system. The lightweight filter assembly flows 1,500 lbs. per hour with less than 1 psi of pressure drop through its 3/8" inlet and outlet fittings. The maximum fuel pressure rating is a whopping 2,000 psi! A 10 micron replaceable filter element and chrome-plated mounting hardware

Canister filter, 6.125" x 3.250", each TFS-23006 TFS-RF006 Canister filter replacement element, each



TFS-23006



#### **TFX Electric Fuel Pump and Regulator Combo** for Carbureted Engines

To feed the serious demands of your carbureted racing engine, you need the serious performance of this TFX fuel pump and regulator combo from Trick Flow.

This combo features the compact, external-mount TFX fuel pump (3.500" wide x 3.125" high x 5.500" long) capable of free-flowing 140 gph of fuel at a maximum pressure of 14 psi. It has 3/8" NPT ports for easy connections and externally accessible pressure relief valves. To control all that fuel flow, you also get the universal bypass-style TFX fuel pressure regulator. It's CNC-machined from cast aluminum and is adjustable from 4.5 to 9 psi. The combo also includes a fuel pump mounting bracket with a rubber isolator to minimize cabin noise. For drag race use only; not recommended for street applications that require a continuous flow fuel pump.

TFS-25013 TFX fuel pump and regulator combo for carbureted engines, each TFS-25013P TFX fuel pump only for carbureted engines, each TFS-25017 TFX fuel pressure regulator only for carbureted engines, each

#### TFX Electric Fuel Pumps for 1986-97 EFI Mustang

Trick Flow TFX high-volume, in-tank electric fuel pumps for 1986-97 EFI Mustangs are not only great for stock replacement, but are designed to meet the fuel requirements of modified engines. And unlike stock fuel pumps that only flow 88-95 lph, Trick Flow pumps are available in 155, 190, and 255 lph flow rates to help your modified engine meet its full power potential. New fuel strainer included; E85 compatible.

Fuel pump, 155 lph, in-tank mount, each TFS-25000 TFS-25001 Fuel pump, 190 lph, in-tank mount, each TFS-25002 Fuel pump, 255 lph, in-tank mount, each



#### **TFX™ Universal Electric Fuel Pump for EFI Engines**

Multi-port EFI systems need a stable fuel supply at all RPMs, and Trick Flow's high-pressure, high-flow electric fuel pump can supply it. Features include a free-flow rate of 43 gph at a maximum pressure of 85 psi, 5/16" inlet and outlets, brass stud terminals for secure connections, and two cushioned clamps for mounting. This fuel pump is ideal as a stand-alone pump for multi-port EFI systems on engines making up to 500 HP, or as a booster for nitrous-assisted engines. Kit includes fuel pump, 30 amp relay, fuse holder, wire, connectors, and mounting hardware; E85 compatible.

Fuel pump kit, universal fit, EFI, includes fuel pump and wiring kit, TFS-25004 43 gph @ 85 psi, each

TFS-25004P Fuel pump only, universal fit, EFI, 43 gph @ 85 psi, each TFS-25004K Fuel pump wiring kit, includes 30 amp relay, fuse holder, wire, and connectors, each



are included.





#### **TFX™ Fuel Rail and Pressure Sensor Adapters** for Ford 4.6L 2V/3V/4V

Trick Flow has engineered two easy ways to upgrade the factory fuel systems on Ford 4.6L engines for better performance.

The TFX fuel rail adapters make it simple to install a nitrous oxide solenoid, a fuel pressure gauge, or any other component that requires a 1/8" NPT fitting. They mount between the factory fuel rail and pressure sensor.

The fuel pressure sensor adapter allows the installation of Trick Flow fuel rails on engines that retain the factory returnless fuel system. Its design permits the pressure sensor to be mounted either remotely or coupled directly to the fuel rails; -8 AN ORB inlet and outlet ports provide a positive seal and eliminate the need for thread sealant.

The adapters feature a black anodized finish with an engraved Trick Flow logo for good looks and durability; mounting hardware is included.

Fuel rail adapter, 1999-2004 Ford 4.6L 2V, each TFS-27022 Fuel rail adapter, 2005-10 Ford 4.6L 3V, each TFS-5188000S Fuel pressure sensor adapter, universal Ford-style, 1997-2004 4.6L 2V/4V. each



From 100% cotton T-shirts to sweatshirts and everything in between, Trick Flow has something for every fashionable motorsports enthusiast!

THOR THOW HA	s something for every lasmonable motorsports entitles
TFS-P61M	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On Performance" on back, white, medium, each
TFS-P61L	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
TEO DO41//	Performance" on back, white, large, each
TFS-P61XL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On Performance" on back, white, X-large, each
TFS-P61XXL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, white, 2X-large, each
TFS-P61XXXL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, white, 3X-large, each
TFS-P62M	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, black, medium, each
TFS-P62L	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, black, large, each
TFS-P62XL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, black, X-large, each
TFS-P62XXL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, black, 2X-large, each
TFS-P62XXXL	T-shirt, "Trick Flow Specialties" on front/"Ultimate Bolt-On
	Performance" on back, black, 3X-large, each







#### **TFX™ Fuel Injectors**

With electronically drilled and machined disc-type fuel control valves, plus improved nozzles and







coil windings, Trick Flow TFX fuel injectors atomize fuel better, resist clogging, are quieter, and require less energy to operate than other aftermarket injectors.

And the features don't stop there. Low magnetic stainless steel injector bodies prevent corrosion from underhood contaminates and seal the injectors from moisture contamination. OEM-style clip grooves secure the injectors to fuel rails and eliminate possible fuel leaks. Viton® fluoroelastomer O-rings seal the injectors to the fuel rails and intake manifold to prevent fuel and air leaks under extreme operating conditions. High-quality, 1/2 micron filter screens keep foreign debris and contaminants from entering the injectors to ensure proper performance and a long life cycle. TFX fuel injectors are 100% duty cycle tested to ensure reliability and performance. Sold in sets of 8. Also available individually by adding "-1" to the end of the part number. All flow values are at 3 bar (43.5 psi).

#### **TFX Bosch-Style Fuel Injectors**

TFS-89024	Fuel injectors, 24 lbs./hr., 14.4 ohms, Jetronic plugs, set of 8
TFS-89030	Fuel injectors, 30 lbs./hr., 14.4 ohms, Jetronic plugs, set of 8
TFS-89036	Fuel injectors, 36 lbs./hr., 14.4 ohms, Jetronic plugs, set of 8
TFS-89044	Fuel injectors, 44 lbs./hr., 12.0 ohms, Jetronic plugs, set of 8
TFS-89048	Fuel injectors, 48 lbs./hr., 12.0 ohms, Jetronic plugs, set of 8
TFS-89072	Fuel injectors, 72 lbs./hr., 2.0 ohms, Jetronic plugs, set of 8
TFS-89083	Fuel injectors, 83 lbs./hr., 2.2 ohms, Jetronic plugs, set of 8
TFS-89095	Fuel injectors, 95 lbs./hr., 2.2 ohms, Jetronic plugs, set of 8
TFS-89120	Fuel injectors, 120 lbs./hr., 2.2 ohms, Jetronic plugs, set of 8
TFS-89160	Fuel injectors, 160 lbs./hr., 2.2 ohms, Jetronic plugs, set of 8

#### **TFX Siemens-Style Fuel Injectors**

TFS-89860	Fuel injectors, 60 lbs./hr., 12.0 ohms, Jetronic plugs, set of 8
TFS-89960	Fuel injectors, 60 lbs./hr., 12.0 ohms, USCAR plugs, set of 8
TFS-89880	Fuel injectors, 80 lbs./hr., 12.0 ohms, Jetronic plugs, set of 8
TFS-89980	Fuel injectors, 80 lbs./hr., 12.0 ohms, USCAR plugs, set of 8

#### **TFX™ Fuel Line Fittings USA**

Trick Flow's reusable TFX fuel line fittings are easy to install. They're made from precision CNC-machined aerospace grade aluminum and feature a sharp, black anodized finish for great looks and long-lasting durability. Best of all, they're available in several sizes and styles for any plumbing job.

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TFS-22006	Hose end, -6 AN, straight, each
TFS-22008	Hose end, -8 AN, straight, each
TFS-22001	Hose end, -10 AN, straight, each
TFS-22456	Hose end, -6 AN, 45°, each
TFS-22458	Hose end, -8 AN, 45°, each
TFS-22451	Hose end, -10 AN, 45°, each
TFS-22906	Hose end, -6 AN, 90°, each
TFS-22908	Hose end, -8 AN, 90°, each
TFS-22901	Hose end, -10 AN, 90°, each
TFS-22386	Adapter, 3/8" NPT to -6 AN, each
TFS-22388	Adapter, 3/8" NPT to -8 AN, each
TFS-22666	Union, -6 AN to -6 AN, each
TFS-22888	Union, -8 AN to -8 AN, each
TFS-22111	Union -10 AN to -10 AN each









Viton® is a registered trademark of DuPont Performance Elastomers



The Trick Flow TFX high-flow air intake kits are built for performance and show, using the highest quality components available to provide late-model vehicles with more power and acceleration. The filters are washable cottongauze, and a polished aluminum inlet tube adds some sparkle under the hood. The kits also feature heat shields to isolate cooler air from engine heat (most applications), plus all necessary mounting hardware and instructions. Manufactured by K&N for Trick Flow.

TFS-23100 High-flow air intake kit. 1999-2004 4.8L/5.3L Chevrolet/GMC Silverado/Sierra, each TFS-23102\*† High-flow air intake kit, 2005-07 4.8L-6.0L Cadillac/Chevrolet/GMC trucks/SUVs, each

TFS-23103† High-flow air intake kit, 1997-2004 4.6L/5.4L

Ford/Lincoln F-150/250 and Expedition/Navigator, each

TFS-23104† High-flow air intake kit, 2003-08 5.7L Hemi Dodge Ram 1500-3500, each

High-flow air intake kit, 2007-08 4.8L-6.2L TFS-23105\*† Cadillac/Chevrolet/GMC trucks/SUVs, each

\*Many more applications available. Please visit TrickFlow.com and type "High-Flow Kits" into the search box to find your specific application

†Emissions-legal under CARB E.O. #D-369-14.



Trick Flow TFX nitrous systems are an affordable way to bolt on big power. TFX systems are adjustable in 50 horsepower increments from 50 to 200 horsepower, and include everything you need to install them on to your vehicle.

Nitrous system, Holley 4150, each TFS-N4150 Nitrous system, Holley 4500, each TFS-N4500

#### **TFX EFI Nitrous Systems**

These EFI manifold nitrous systems are specifically designed for 1986-95 5.0L Fords with Trick Flow intake manifolds. TFX systems are adjustable in 50 horsepower increments from 50 to 200 horsepower. The systems include spray bar plates, calibrated solenoids, jets, switches, lines, filter, 10 lb. unfilled bottle, bottle brackets, 14 ft. of -4 AN braided stainless steel line, hardware, and instructions.

Nitrous system, StreetBurner®/Track Heat® intake, each TFS-N5150 Plate and jets only, StreetBurner/Track Heat intake, kit TFS-N5150PL

Nitrous system, R-Series intake, each TFS-N515R TFS-N515RPL Plate and jets only, R-Series intake, kit TFS-N5158 Nitrous system, Box-R-Series intake, each TFS-N5158PL Plate and jets only, Box-R-Series intake, kit



TFX™ Cold Air Intake Kits

Trick Flow TFX cold air intake kits replace an engine's restrictive stock air cleaner or airbox with a black composite, low-restriction unit and reusable cotton-gauze filter that will increase airflow to the engine. As we all learned in Horsepower 101, more air equals more power. The kits include an air filter assembly, a plenum (where applicable), mounting hardware, and instructions. Manufactured by K&N for Trick Flow.

TFS-23050† Cold air intake kit, 1999-2004 4.8L-5.3L Chevrolet/GMC Silverado/Sierra 1500, each

TFS-23051† Cold air intake kit, 1996-2005 4.3L Chevrolet/GMC S10/15

trucks/SUVs, each

Cold air intake kit, 2001-07 6.0L Chevrolet/GMC 2500HD/3500, each TFS-23052† TFS-23053\*† Cold air intake kit, 2005 4.8L-6.0L Chevrolet/GMC trucks/SUVs, each Cold air intake kit, 1988-95 5.7L Chevrolet/GMC trucks/SUVs, each TFS-23054

TFS-23055\*† Cold air intake kit, 1999-2004 6.0L Chevrolet/GMC

Silverado/Sierra, each Cold air intake kit, 1996-2000 5.0L/5.7L Chevrolet/GMC TFS-23056†

trucks/SUVs, each

Cold air intake kit, 1993-97 5.7L Chevrolet/Pontiac TFS-23057†

Camaro/Firebird, each

TFS-23058+ Cold air intake kit, 1994-96 5.7L Chevrolet Impala SS/Caprice, each Cold air intake kit, 1994-2002 5.2L/5.9L Dodge Ram 1500/2500, each TFS-23059† TFS-23060† Cold air intake kit, 2003-08 5.7L Hemi Dodge Ram 1500/2500, each Cold air intake kit, 1988-95 5.0L/5.8L Ford F-150/Bronco, each TFS-23061† TFS-23062† Cold air intake kit, 1997-2003 4.6L/5.4L Ford F-150; 1997-2002

4.6L/5.4L Ford/Lincoln Expedition/Navigator, each Cold air intake kit, 2004-05 4.6L Ford F-150, each

TFS-23063† TFS-23065† Cold air intake kit, 1999-2004 5.4L F-250/350

Super Duty/Excursion, each

TFS-23066† Cold air intake kit, 1996-2004 4.6L Ford Mustang GT, each Cold air intake kit, 2004 5.7L Pontiac GTO, each TFS-23069† TFS-23070† Cold air intake kit, 2005 6.0L Pontiac GTO, each

TFS-23077 Cold air intake kit, 2008 5.4L Ford/Lincoln F-150/Mark LT, each

Cold air intake kit, 2005-07 5.7L/6.1L Hemi Chrysler 300C; Dodge TFS-23078† Charger/Magnum, each

Cold air intake kit, 2007 4.8L-6.2L TFS-23079\*†

Cadillac/Chevrolet/GMC trucks/SUVs, each

TFS-23080 Cold air intake kit, 2006-07 6.0L Chevrolet Corvette, each TFS-23081† Cold air intake kit, 2001-04 5.7L Chevrolet Corvette, each TFS-23084 Cold air intake kit, 2005-06 5.4L Ford F-250 Super Duty, each Cold air intake kit, 2009-14 5.7L Hemi Dodge Ram 1500, each TFS-23086\*

TFS-23088\* Cold air intake kit, 2007-14 5.4L Ford/Lincoln

Expedition/Navigator, each

Cold air intake kit, 2007-12 3.7L TFS-23091 Chevrolet/GMC Colorado/Canyon, each

Cold air intake kit, 2009-14 4.8L-6.2L TFS-23092\* Chevrolet/GMC Silverado/Sierra, each

Cold air intake kit, 2008-13 6.2L Chevrolet Corvette, each TFS-23093 TFS-23094 Cold air intake kit, 2010-15 6.2L Chevrolet Camaro SS, each TFS-23096 Cold air intake kit, 2008-10 5.4L Ford F-250 Super Duty; 2007-10 5.4L Ford F-350 Super Duty, each

\*Many more applications available. Please visit TrickFlow.com and type "Cold Air" into the search box to find your specific application

†Emissions-legal under CARB E.O. #D-369-14.



### Trick Flow by Stainless Works Headers



#### Headers

Flow is about more than just stuffing as much air and fuel as possible into an engine. In order to draw a new air/fuel charge into the cylinder heads to burn, everything left over from igniting the previous air/fuel charge must be removed from the cylinders efficiently.

That's why Trick Flow turned to the exhaust specialists at Stainless Works for headers designed to complement the high-flow characteristics of Trick Flow's cylinder heads and other performance engine components. Made in the USA from 304L stainless steel, the Trick Flow by Stainless Works Headers feature CNC mandrel-bent tubing for maximum flow and extra-thick, laser-cut 3/8" flanges for a leak-free fit. Plus, the headers are fully TIG-welded—no need to worry about tubes cracking at the flanges or collectors. All headers are backed by a lifetime warranty.

#### **Header Build Kits**

Trick Flow header build kits are designed for enthusiasts who want to build their own stainless steel headers. Only the laser-cut header flanges and collectors are premade—you use the kit's J-bends and filler diamonds to connect the tubes together to build a custom exhaust solution for your application.

#### **Turbo Headers**

Trick Flow even offers headers just for turbo applications. These Trick Flow by Stainless Works turbo headers are engineered to handle the higher EGTs typically found in turbocharged applications. The headers are made from heavy wall 16 gauge 304L stainless steel for added durability and are carefully TIG welded using 308 SS weld wire and are back purged to assure full weld penetration. Requires fabrication to fit an exhaust system.

**NOTE:** These turbo headers are designed to work with dimensionally stock cylinder heads and valve covers. If you are using aftermarket heads and valve covers, please contact the Trick Flow Technical Department (1-330-630-1555 Monday through Friday from 9:00 am to 5:00 pm EST) for additional measurements.

#### **Headers with Catalytic Converters Systems**

Trick Flow by Stainless Works headers for late model vehicles also include high flow stainless steel catalytic converters and O2 sensor extensions to keep you street legal, along with clamps, bolts, and RTV silicone for an easy installation.

#### Headers with Off-Road Intermediate Pipe Systems

Announce your arrival with a raspy, race car like growl with a Trick Flow by Stainless Works header and off-road intermediate pipe system. The lack of catalytic converters increases the engine's volume while the high-flow design of the low restriction lead pipes greatly improves horsepower, torque, and engine efficiency. For off-road use only.

	Trick Flow by Stainless Works Headers							
	Application	Туре	Year	Engine	Tube Diameter	Collector Size and Style	Notes	Part Number
Cadillac	CTS-V	Headers with Converters System	2009-15	LSA	2"	Fits to factory connection point	Includes 3" lead pipes and X-pipe	TFS-CTSV09HCAT
	CTS-V	Headers with Converters System	2009-15	LSA	2"	Fits to Stainless Works Performance Connect system	Includes 3" lead pipes	TFS-CTSV09HCATSW
	CTS-V	Headers with Off-Road Pipe System	2009-15	LSA	2"	Fits to factory connection point	Includes 3" off-road lead pipes and X-pipe	TFS-CTSV09HOR
	CTS-V	Headers with Off-Road Pipe System	2009-15	LSA	2"	Fits to Stainless Works Performance Connect system	Includes 3" off-road lead pipes	TFS-CTSV09H0RSW
Chevrolet	Universal	Build Kit	_	LS	11//8"	3½" slip-on	_	TFS-HBK188LS
	Universal	Build Kit	_	LS	2"	3½" slip-on	_	TFS-HBK200LS
	Universal	Build Kit	_	283-400	13/4"	3" slip-on	_	TFS-HBK175SBC
	Universal	Build Kit	_	283-400	17/8"	3" slip-on	_	TFS-HBK188SBC
	Universal	Build Kit	_	396-454	2"	3½" slip-on	_	TFS-HBK200BBC
	Universal	Build Kit	_	396-454	21/4"	3½" slip-on	_	TFS-HBK225BBC
	Universal	Turbo Headers	_	396-454	21/4"	3½" slip-on	Up and forward turbo mounting position	TFS-BBCT
	Universal	Turbo Headers	_	396-454	21/2"	3½" slip-on	Down and forward turbo mounting position	TFS-BBCDFT
	Universal	Turbo Headers	_	LS	1¾"	3" slip-on	Down and forward turbo mounting position, works with factory A/C	TFS-LS1DFT
	Universal	Turbo Headers	_	LS	17//8"	3" slip-on	Up and forward turbo mounting position	TFS-LSXT
	Universal	Turbo Headers	_	283-400	17//8"	3" slip-on	Up and forward turbo mounting position	TFS-SBCT
	Camaro	Headers	1970-81	283-400	15/8"	3" slip-on		TFS-CA6781SB
	Camaro	Headers	1970-81	LS engine swap	17/8"	3" slip-on with O <sub>2</sub> sensor bungs	Includes 1" set-back motor mount adapters for small block motor mounts	TFS-CA7081LS1
	Camaro	Headers with Converters System	1994-95	LT1	1¾"	Fits to factory connection point	Includes 2½" Y-pipe and AIR tubes	TFS-CA9495CAT
	Camaro	Headers with Converters System	1996-97	LT1	13/4"	Fits to factory connection point	Includes 2½" Y-pipe and AIR tubes	TFS-CA9697CAT
	Camaro	Headers with Converters System	1998-99	LS1	13/4"	Fits to factory connection point	Includes 2½" Y-pipe and AIR tubes	TFS-CA9899CAT
	Camaro	Headers with Converters System	2000	LS1	13/4"	Fits to factory connection point	Includes 2½" Y-pipe	TFS-CA00CAT
	Camaro	Headers with Converters System	2001-02	LS1	13/4"	Fits to factory connection point	Includes 2½" Y-pipe	TFS-CA0102CAT
	Camaro	Headers with Converters System	2010-15	LS3/L99/ LSA	17/8"	Fits to factory connection point		TFS-CA11HDRCATST
	Camaro	Headers with Converters System	2010-15	LS3/L99/ LSA	2"	Fits to factory connection point		TFS-CA11HDRCAT

Trick Flow by Stainless Works Headers (continued)								
	Application	Туре	Year	Engine	Tube Diameter	Collector Size and Style	Notes	Part Number
Chevrolet (continued)	Camaro	Headers with Converters System	2010-15	LS3/L99/ LSA	17/8"	3" slip-on, fits to Stainless Works Performance Connect system	Includes 3" lead pipes	TFS-CA11HDR3CATS
	Camaro	Headers with Converters System	2010-15	LS3/L99/ LSA	2"	3" slip-on, fits to Stainless Works Performance Connect system	Includes 3" lead pipes	TFS-CA11HDR3CAT
	Camaro	Headers with Off-Road Pipe System	2010-15	LS3/L99/ LSA	2"	3" slip-on; fits to Stainless Works Performance Connect System	Includes 3" off-road lead pipes	TFS-CA11HDR30R
	Camaro	Headers with Off-Road Pipe System	2010-15	LS3/L99/ LSA	17/8"	3" slip-on, fits to Stainless Works Performance Connect system	Includes 3" off-road lead pipes	TFS-CA11HDR30RST
	Camaro	Headers with Off-Road Pipe System	2010-15	LS3/L99/ LSA	2"	Fits to factory connection point	Includes 3" off-road lead pipes	TFS-CA11HDROR
	Camaro	Headers with Off-Road Pipe System	2010-15	LS3/L99/ LSA	17/8"	Fits to factory connection point	Includes 3" off-road lead pipes	TFS-CA11HDRORST
	Camaro/Nova	Headers	1967-69	283-400	13/4"	3" slip-on	Will not work with factory A/C	TFS-CA679S7
	Camaro/Nova	Headers	1967-69	LS engine swap	1¾"	3" slip-on with $\mathrm{O}_2$ sensor bungs	With rack and pinion steering, will not work with factory A/C box	TFS-CALS1
	Camaro/Nova	Headers	1967-69	LS engine swap	1¾"	3" slip-on with $\mathrm{O}_2$ sensor bungs	With OEM steering box, will not work with factory A/C box	TFS-CALS1SB
	Camaro/Nova	Headers	1967-69	396-454	2"	3½" slip-on	With power steering	TFS-CANV679
	Nova	Headers	1962-67	LS engine swap	17/8"	3" slip-on	With aftermarket rack and pinion steering Includes motor mount adapters for use with stock motor mounts in neutral position	TFS-NVLS1
	Chevelle/ Malibu/ El Camino/ Monte Carlo	Headers	1968-72	283-400	15/8"	3" slip-on		TFS-CV6872SB
	Chevelle/ Malibu/ El Camino/ Monte Carlo	Headers	1968-72	396-454	2"	3½" slip-on	Recommend mini starter for clearance	TFS-CVBB2
	Chevelle/ Malibu/ El Camino/ Monte Carlo	Headers	1968-72	LS engine swap	17/8"	3" slip-on with $\mathrm{O}_2$ sensor bungs		TFS-CVLS1
	Dragster	Headers	_	396-454	21/4"	4" merge-style slip-on	Downswept style, with conventional heads	TFS-DNBBC225
	Dragster	Headers	_	396-454	23/8"	4½" merge-style slip-on	Downswept style, with conventional heads	TFS-DNBBC238
	Dragster	Headers	_	396-454	2½"	5" merge-style slip-on	Downswept style, with conventional heads	TFS-DNBBC250
	Dragster	Headers	_	396-454	2½" x 2½" stepped	4½" merge-style slip-on	Downswept style, with conventional heads	TFS-DBBC225238
	Dragster	Headers	_	396-454	23/8" x 21/2" stepped	5" merge-style slip-on	Downswept style, with conventional heads	TFS-DBBC238250
	Dragster	Headers	_	396-454	21/4"	4" merge-style slip-on	Upswept style, with conventional heads	TFS-UPBBC225
	Dragster	Headers	_	396-454	21/4"	4" merge-style slip-on	Upswept style, with conventional heads	TFS-UPBBC250
	Corvette	Headers with Converters System	1992-96	LT1/LT4	15/8"	$2\frac{1}{2}$ "; fits to factory connection point	Includes AIR tubes and O <sub>2</sub> sensor bungs installed	TFS-C492-96CAT
	Corvette	Headers with Converters System	1997- 2000	LS1	17/8"	Fits to factory connection point	Includes 3" X-pipe and center section AIR tubes and O <sub>2</sub> sensors installed	TFS-C5LS178CAT
	Corvette	Headers with Converters System	2001-04	LS1/LS6	17/8"	Fits to factory connection point	Includes 3" X-pipe and center section AIR tubes and O <sub>2</sub> sensors installed	TFS-C5LS103CATBT
	Corvette	Headers with Converters System	2005-08	LS2/LS3	17/8"	Fits to factory connection point	Includes 2½" X-pipe and center section	TFS-C6CAT
	Corvette	Headers with Converters System	2009-13	LS3	17/8"	Fits to factory connection point		TFS-C609178HCAT
	Corvette	Headers with Converters System	2009-13	LS3	2"	Fits to factory connection point		TFS-C6092HCAT
	Corvette	Headers with Converters System	2006-13	LS7	1¾"	Fits to factory connection point	Includes 3" X-pipe and center section Includes oil cooler lines	TFS-Z06178CAT
	Corvette	Headers with Converters System	2006-13	LS7	2"	Fits to factory connection point	Includes 3" X-pipe and center section Includes oil cooler lines	TFS-Z062CAT



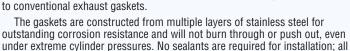
					Tube	ss Works Headers (continu		
	Application	Туре	Year	Engine	Diameter	Collector Size and Style	Notes	Part Number
Chevrolet (continued)	Corvette	Headers with Off-Road Pipe System	2006-13	LS7	17/8"	3" slip-on; fits to factory connection point	Includes 3" off-road lead pipes and X-pipe, O <sub>2</sub> extensions, Accuseal clamps, clamp/hanger assemblies, oil cooler lines, compression fittings, zip ties, cable clamps, center section, and oil cooler lines	TFS-Z061780R
Dodge	Universal	Build Kit	_	383-440	2"	3½" slip-on	_	TFS-HBK200CHR
	Challenger	Headers with Converters System	2008-15	Hemi	17/8"	Fits to factory connection point		TFS-HM64HDRCAT
	Challenger	Headers with Off-Road Pipe System	2008-15	Hemi	17/8"	3" slip-on; fits to factory connection point or to Stainless Works Performance Connect system	Includes 3" off-road lead pipes, clamps, O <sub>2</sub> sensor extensions, and RTV silicone	TFS-HM64HDR0R
ord	Universal	Build Kit	_	260- 351W	1¾"	3" slip-on	_	TFS-HBK175SBF2
	Universal	Build Kit	_	260- 351W	17/8"	3½" slip-on	_	TFS-HBK188TFHP
	Universal	Build Kit	_	260- 351W	2"	3½" slip-on	_	TFS-HBK200TFHP
	Universal	Turbo Headers	_	429/460	21/4"	3½" slip-on	Down and forward turbo mounting position	TFS-BBFDFT
	Universal	Turbo Headers	_	260- 351W	17/8"	3" slip-on	Down and forward turbo mounting position	TFS-SBFDFT-SBF2
	Universal	Turbo Headers	_	260- 351W	17/8"	3" slip-on	Down and forward turbo mounting position	TFS-SBFDFT-TFHP
	Mustang	Turbo Headers with Downpipe Kit	_	260- 351W	17/8"	3" slip-on	Down and forward turbo mounting position Includes 3" crossover tube with 3/8" T6 turbo flange, 3" V-band flanges and clamps, 1/4" aluminum motor plate, and coned 5"-to-4" 90° bend downpipe	TFS-SBFDFTKIT
	Mustang	Headers	1979-93	351W	17/8"	3½" slip-on	With Brodix T1 F STD and Trick Flow High Port® cylinder heads; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XHP188
	Mustang	Headers	1979-93	351W	2"	3½" slip-on	With Brodix T1 F STD and Trick Flow High Port® cylinder heads; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XHP2
	Mustang	Headers	1979-93	351W	17/8"	3½" slip-on	With UPR Products and AJE Suspension K-members; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XTW188
	Mustang	Headers	1979-93	351W	2"	3½" slip-on	With UPR Products and AJE Suspension K-members; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XTW2
	Mustang	Headers	1979-93	351W	17/8"	3½" slip-on	With Brodix T1 F STD X, Ford Racing SVO N351, Trick Flow Twisted Wedge®, and Edelbrock Victor II cylinder heads; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XTWR188
	Mustang	Headers	1979-93	351W	2"	3½" slip-on	With Brodix T1 F STD X, Ford Racing SVO N351, Trick Flow Twisted Wedge®, and Edelbrock Victor II cylinder heads; fits all manual/auto transmissions up to GM TH400 case dimensions	TFS-F0XTWR2
	Mustang	Headers with Converters System	1996- 2002	4.6L 2V	15/8"	2½" slip-on; fits to factory connection point	Includes 2½" X-pipe	TFS-M9604
	Mustang	Headers with Converters System	2005-10	4.6L 2V	13/4"	3" slip-on; fits to factory connection point	Includes 3" lead pipes	TFS-M05H175
	Mustang	Headers with Converters System	2011-13	5.0L 4V	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" X-pipe and lead pipes	TFS-M11HDRCATX
	Mustang	Headers with Off-Road Pipe System	2011-14	5.0L 4V	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" off-road lead pipes and X-pipe	TFS-M11HDRORX
	GT500	Headers with Converters System	2007-10	5.4L 4V S/C	17/8"	3" slip-on with merge spikes; fits to factory connection point or to Stainless Works Performance Connect system	Includes 3" X-pipe and lead pipes	TFS-GT5HCAT

	Trick Flow by Stainless Works Headers (continued)								
	Application	Туре	Year	Engine	Tube Diameter	Collector Size and Style	Notes	Part Number	
Ford (continued)	GT500	Headers with Off-Road Pipe System	2007-10	5.4L 4V S/C	17/8"	3" slip-on with merge spikes; fits to factory connection point or to Stainless Works Performance Connect system	Includes 3" off-road lead pipes and X-pipe	TFS-GT5HOR	
	GT500	Headers with Converters System	2011-14	5.4L 4V S/C	17/8"	3" slip-on with merge spikes; fits to factory connection point or to Stainless Works Performance Connect system	Includes 3" X-pipe and lead pipes	TFS-GT115HCAT	
	GT500	Headers with Off-Road Pipe System	2011-14	5.4L 4V S/C	17/8"	3" slip-on with merge spikes fits to factory connection point or to Stainless Works Performance Connect system	Includes 3" off-road lead pipes and X-pipe	TFS-GT115HOR	
	F-150	Downpipe	2011-14	3.5L EcoBoost	_	Fits to factory connection point	Includes 3" downpipe and Y-pipe, does not come with headers	TFS-FTECODPCAT	
	F-150	Downpipe	2011-14	3.5L EcoBoost	_	Fits to factory connection point	Includes 3" off-road downpipe and Y-pipe, does not come with headers	TFS-FTECODP	
	Raptor SuperCab	Headers with Converters System	2010-14	6.2L	17/8"	3" slip-on with merge spikes; fits to Stainless Works Performance Connect system	Includes 3" lead pipes, X-pipe, and clamps	TFS-FTRPT10HCAT	
	Raptor SuperCab	Headers with Converters System	2010-14	6.2L	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" lead pipes, Y-pipe, and clamps	TFS-FTRPT10HCATY	
	Raptor SuperCab	Headers with Off-Road Pipe System	2010-14	6.2L	17/8"	3" slip-on with merge spikes; fits to Stainless Works Performance Connect system	Includes 3" off-road lead pipes, X-pipe, and clamps	TFS-FTRPT10H0R	
	Raptor SuperCab	Headers with Off-Road Pipe System	2010-14	6.2L	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" off-road lead pipes, Y-pipe, and clamps	TFS-FTRPT10H0RY	
	Raptor SuperCrew	Headers with Converters System	2011-14	6.2L	17/8"	3" slip-on with merge spikes; fits to Stainless Works Performance Connect system	Includes 3" lead pipes, X-pipe, and clamps	TFS-FTRPT11HCATS	
	Raptor SuperCrew	Headers with Converters System	2011-14	6.2L	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" lead pipes, Y-pipe, and clamps	TFS-FTRP11HCATY	
	Raptor SuperCrew	Headers with Off-Road Pipe System	2011-14	6.2L	17/8"	3" slip-on with merge spikes; fits to Stainless Works Performance Connect system	Includes 3" off-road lead pipes, X-pipe, and clamps	TFS-FTRPT11HORSC	
	Raptor SuperCrew	Headers with Off-Road Pipe System	2011-14	6.2L	17/8"	3" slip-on with merge spikes; fits to factory connection point	Includes 3" off-road lead pipes, Y-pipe, and clamps	TFS-FTRPT11H0RYS	
Pontiac	GTO	Headers with Converters System	2004	LS1	13/4"	Fits to factory connection point	Includes 3" pipes	TFS-GTOHCAT	
	GTO	Headers with Off-Road Pipe System	2004	LS1	13/4"	Fits to factory connection point	Includes 3" pipes and O <sub>2</sub> sensor extensions	TFS-GTOHDR	
	GTO	Headers with Converters System	2005-06	LS2	13/4"	Fits to factory connection point	Includes 3" pipes	TFS-05GTOHCAT	

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#### Trick Flow by Cometic MLS Exhaust Gaskets





TFS-30490931 MLS exhaust gaskets, small block Chevrolet, 1.500" x 1.500" D-port shape, pair

TFS-30490941 MLS exhaust gaskets, GM LT1/LT4, 1.500" x 1.500" D-port shape, pair

TFS-30690931 MLS exhaust gaskets, GM LS, 1.820" round port shape, pair

TFS-41490931 MLS exhaust gaskets, big block Chevrolet, 2.125"

round port shape, pair

gaskets are .030" thick.

TFS-51490931 MLS exhaust gaskets, small block Ford, 1.250" x 1.500"

rectangular port shape, pair

TFS-51890931 MLS exhaust gaskets, Ford 4.6L/5.4L 2V, 1.700" round port shape, pair

TFS-52990931 MLS exhaust gaskets, Ford 4.6L/5.4L 3V, 1.600" x 1.570"

D-port shape, pair

TFS-52990951 MLS exhaust gaskets, Ford 5.0L 4V, 1.875" round port shape, pair

MLS exhaust gaskets, Ford 429/460, 1.550" x 2.350" TFS-53490931

oval port shape, pair

TFS-56490931 MLS exhaust gaskets, Ford 390-428, 1.560" x 2.320"

rectangular port shape, pair

TFS-61690931 MLS exhaust gaskets, big block Mopar, 1.460" x 1.780"

rectangular port shape, pair





#### **Trick Flow by Cometic MLS Head Gaskets**



These multi-layer steel head gaskets from Trick Flow and Cometic are the best way to seal aftermarket cylinder heads to an engine. With three layers of stainless steel, these gaskets offer better torque retention, less distortion, and better sealing than conventional or composite head gaskets in high

	inder-pressure applications.
TFS-30494040-040 TFS-30494060-040	MLS head gasket, GM LT1/LT4, 4.040" bore, .040" thick, each MLS head gasket, small block Chevrolet, 4.060" bore, .040" thick, each
TFS-30494200-040	MLS head gasket, small block Chevrolet, 4.200" bore, .040" thick, each
TFS-30694030-045	MLS head gasket, GM LS1/LS6, 3.910" bore, .045" thick, each
TFS-30694030-051	MLS head gasket, GM LS1/LS6, 3.910" bore, .051" thick, each
TFS-30694060-045	MLS head gasket, GM LS2, 4.060" bore, .045" thick, each
TFS-30694060-051	MLS head gasket, GM LS2, 4.060" bore, .051" thick, each
TFS-30694125L051	MLS head gasket, GM LSX, 4.125" bore, .051" thick, 6-bolt,
TEC 0000440ED0E4	left, each
TFS-30694125R051	MLS head gasket, GM LSX, 4.125" bore, .051" thick, 6-bolt, right, each
TFS-30694130-051*	MLS head gasket, GM LS2/6.0L, 4.130" bore, .051" thick, each
TFS-30694160-045	MLS head gasket, GM LS7/LSX, 4.150" bore, .045" thick, each
TFS-30694160-051	MLS head gasket, GM LS7/LSX, 4.150" bore, .051" thick, each
TFS-30694185L051	MLS head gasket, GM LSX, 4.185" bore, .051" thick, 6-bolt, left, each
TFS-30694185R051	MLS head gasket, GM LSX, 4.185" bore, .051" thick, 6-bolt, right, each
TFS-32694100-045	MLS head gasket, GM LS3/L92, 4.100" bore, .045" thick, each
TFS-32694100-051	MLS head gasket, GM LS3/L92, 4.100" bore, .051" thick, each
TFS-41394375-040	MLS head gasket, big block Chevrolet, 4.375" bore, .040" thick, each
TFS-41394540-040	MLS head gasket, big block Chevrolet, 4.540" bore, .040" thick, each
TFS-51494030-040	MLS head gasket, small block Ford, 4.030" bore, .040" thick, each
TFS-51494060-040	MLS head gasket, small block Ford, 4.060" bore, .040" thick, each
TFS-51494080-040	MLS head gasket, small block Ford, 4.080" bore, .040" thick, each
TFS-51494155-040	MLS head gasket, small block Ford, 4.155" bore, .040" thick, each
TFS-51694100-040	MLS head gasket, Ford 351C, 351M/400, and Clevor

conversions, 4.100" bore, .040" thick, each \*Required when using Trick Flow GenX® 235 or 245 cylinder heads on 4.000" and larger bore engine blocks.



**Transmission Pans** 

Trick Flow transmission pans are made from A319 cast aluminum. They hold between one to three extra quarts of fluid (depending on application) and are finned to help the transmission dissipate heat faster for maximum efficiency. The pans come complete with mounting bolts, drain plug, filter extension, and a new gasket (where applicable). Part number TFS-1012 also includes a dipstick and tube.

TFS-1000	Transmission pan kit, GM TH250/350, each
TFS-1001	Transmission pan kit, GM TH400, each
TFS-1003	Transmission pan kit, Ford C-6, each
TFS-1006	Transmission pan kit, Ford C-4 1970 and later, case-fill, each
TFS-1007	Transmission pan kit, Ford AOD, each
TFS-1009	Transmission pan kit, Chrysler A-727 Torqueflite, each
TFS-1011	Transmission pan kit, Ford E40D/4R100/5R110, each
TFS-1012	Transmission pan kit, Ford 5R55N/5R55S/5R55W,
	includes dipstick, each
TFS-1018	Transmission pan kit, GM TH700R4/4L60/E, each
TFS-1006-PFK	Pan fill dipstick tube fitting, Ford C-4, each



TFS-5180902L	MLS head gasket, Ford 4.6L/5.4L 2V, Twisted Wedge® Race 195 cylinder heads and Ford Racing M-6010B0SS50 engine block only, 3.700 bore, .030" thick, left, each
TFS-5180902R	MLS head gasket, Ford 4.6L/5.4L 2V, Twisted Wedge Race 195 cylinder heads and Ford Racing M-6010B0SS50 engine block only, 3.700 bore, .030" thick, right, each
TFS-5180903L	MLS head gasket, Ford 5.0L 4V, 3.700" bore, .040" thick, left, each
TFS-5180903R	MLS head gasket, Ford 5.0L 4V, 3.700" bore, .040" thick, right, each
TFS-53494500-040	MLS head gasket, Ford 429/460 and Trick Flow A460, 4.500" bore, .040" thick, each
TFS-53494670-040	MLS head gasket, Ford 429/460 and Trick Flow A460, 4.670" bore, .040" thick, each
TFS-54594600-045	MLS head gasket, Ford 429/460 and Trick Flow A460, 4.600" bore, .045" thick, 18-bolt, each
TFS-56494080-040	MLS head gasket, Ford 390-428, 4.080" bore, .040" thick, each
TFS-56494165-040	MLS head gasket, Ford 390-428, 4.165" bore, .070" thick, each
TFS-56494250-040	MLS head gasket, Ford 390-428, 4.250" bore, .040" thick, each
TFS-61494040-040	MLS head gasket, Chrysler 318-360, 4.040" bore, .040" thick, each
TFS-61494080-040	MLS head gasket, Chrysler 318-360, 4.080" bore, .040" thick, each
TFS-61694350-040	MLS head gasket, Chrysler 383-440, 4.350" bore, .040" thick, each
TFS-61694350-051	MLS head gasket, Chrysler 383-440, 4.350" bore, .051" thick, each
TFS-61694380-040	MLS head gasket, Chrysler 383-440, 4.380" bore, .040" thick, each
TFS-61694380-051	MLS head gasket, Chrysler 383-440, 4.380" bore, .051" thick, each
TFS-61694500-040	MLS head gasket, Chrysler 400/440, 4.500" bore, .040" thick, each
TFS-61694500-051	MLS head gasket, Chrysler 400/440, 4.500" bore, .051" thick, each
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#### **Differential Covers**

Trick Flow differential covers feature heavy-duty A319 cast aluminum construction and extreme-duty bearing cap support studs to prevent cap movement and breakage, as well as ensure proper pinion depth and backlash. The covers come with support studs, jam nuts, ARP stainless steel bolts, gasket, and a 3/8" magnetic drain plug.

The carrier bearing cap stud kits replace the weak factory differential carrier bearing cap bolts with much stronger studs to further increase differential strength. Includes all necessary studs, nuts, and washers for a complete installation.

#### **Differential Covers**

TFS-8510200 Differential cover kit, GM 12-bolt passenger car, each Differential cover kit, GM 8.2"/8.5", each TFS-8510300 TFS-8510400 Differential cover kit, GM 7.5"/7.625", each TFS-8510500 Differential cover kit, Ford 8.8", each TFS-8510600 Differential cover kit, Ford 10.25"/10.5" Sterling, each

#### **Carrier Bearing Cap Stud Kits**

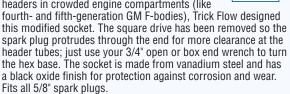
TFS-85101-1 Carrier bearing cap stud kit, Ford 8.8", each TFS-85102-1 Carrier bearing cap stud kit, GM 12-bolt passenger car, each





#### **Header Spark Plug Socket**

To help save your knuckles while installing headers in crowded engine compartments (like



TFS-90500 Header spark plug socket, each



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#### **Valve Cover Breather Systems and Accessories**

Protect your investment with Trick Flow valve cover breather systems and accessories. Made from premium components, these pieces deliver great performance and add the perfect finishing touch to your engine compartment.

The oil vapor separator tank systems pre-clean crankcase ventilation gasses before introducing them into the intake manifold. The modular design fits a variety of applications, including traditional open breather systems, late model closed systems, and systems for forced induction engines. Manufactured from billet aluminum with a black anodized finish, the systems feature a ball-style drain valve, fluid level sight plug, stainless steel mounting bracket. -8 AN male inlet, and a customizable outlet for 3/4" push-in breathers, PCV valves, and push-in filter elements.

The oil vapor line limiting breather fittings attach to the valve cover breather opening and reduce the amount of oil vapor vented from the crankcase. The fittings are manufactured from billet aluminum and feature a cleanable, reusable sintered metal strainer element.

#### **Oil Vapor Separator Tank Systems and Components**

#### **Oil Vapor Tank Systems**

TFS-K51400850 Single separator tank system and plumbing kit, fits 11/4" hole valve covers, each

TFS-K51400852 Dual separator tank system and plumbing kit, fits 11/4" hole valve

covers, each

#### Oil Vapor Tank Individual Components

TFS-51400850 Separator tank only, -8 AN single inlet, each TFS-51400851 Separator tank only, -6 AN single inlet, each TFS-51400852 Separator tank only, -8 AN dual inlet, each TFS-51400853

Separator system plumbing kit only, 3' of hose and limiting fittings, single tank, each

TFS-51400854 Separator system plumbing kit only, 6' of hose and limiting

fittings, dual tank, each TFS-51400870 Clamp-on filter, 2" O.D., with tank adapter, each

#### **Oil Vapor Line Limiting Breather Fittings and Components**

Valve cover separator/breather fitting, 1.220" hole, 3/4" or 1" TFS-51400855 breather or PCV valve, push-in, each

Oil Fill Plugs

TFS-51800800 Oil fill plug, 1.150" hole, each TFS-51400803 Oil fill plug, with Trick Flow logo, 1.150" hole, each

**Filler Tubes** 

TFS-51400817

TFS-51400805 Filler tube, short, weld-on, each TFS-51400806 Filler tube, tall, weld-on, each

Filler tube cap, each

TFS-51400807 Weld-In Bungs TFS-51400808 Bung, 1/8" NPT female, each TFS-51400809 Bung, 1/4" NPT female, each Bung, 3/8" NPT female, each TFS-51400810

TFS-51400811 Bung, 1/2" NPT female, each TFS-51400812 Bung, 3/4" NPT female, each TFS-51400813 Bung, -6 AN male, each TFS-51400814 Bung, -8 AN male, each Bung, -10 AN male, each TFS-51400815 TFS-51400816 Bung, -12 AN male, each











element and triple chrome plated steel construction. The Trick Flow logo is embossed into

the lid and three different base options will fit just about any carburetor and ignition combination. Includes mounting stud and wing nut.

The chrome plated valve covers provide a great alternative to higher priced aluminum covers. They're baffled to prevent oil breather blow-by (except small block Ford) and feature embossed Trick Flow logos, triple chrome plating, and new gaskets.

The valve cover breathers feature a pre-treated cotton gauze filter element that protects your engine while letting it breathe freely. Other features include a push-in design for quick installation and chrome tops with embossed Trick Flow logos.

TFS-44020

#### **Chrome Air Cleaners**

TFS-23020 Air cleaner, flat base, each TFS-23021 Air cleaner, 13/16" drop base, each

#### Chrome Valve Covers

TFS-44000 Valve covers. Chevrolet 283-400, pair TFS-44001 Valve covers, Chevrolet 396-454, pair TFS-44002 Valve covers, Ford 260-351W, pair TFS-44003 Valve covers, Ford 429/460, pair

#### **Chrome Valve Cover Breathers**

TFS-44020 Valve cover breather, fits 1.250" hole, rubber base, shielded, each TFS-44021 Valve cover breather, fits 1.250" hole, rubber base, each TFS-44022 Valve cover breather, fits 1.250" hole, steel base, each TFS-44023 Valve cover breather, fits 1.000" i.d. grommets, steel base, each



Bung, -16 AN male, each



#### **Steam Line Plumbing Kits and Accessories** for GM LS

Trick Flow steam line plumbing kits and accessories allow owners of modified LS-powered cars and trucks to upgrade the factory steam tubes to the more desirable and easier-to-service race car plumbing system.

The plumbing kits are available two ways—just for the front of the heads or for all four corners. They include all of the necessary hose, fittings, and other components needed for installation. Plus, the components are available separately for those who want to design a custom system.

#### Steam Line Plumbing Kits, Black Rubber Hose

TFS-30600600 Steam line plumbing kit, front of heads only, each TFS-30600601 Steam line plumbing kit, front and rear of heads, each

#### Steam Line Plumbing Kits, Black Nylon Braided AN Hose

TFS-306SB600 Steam line plumbing kit, front of heads only, each TFS-306SB601 Steam line plumbing kit, front and rear of heads, each

#### Steam Line Plumbing Kits, Stainless Steel Braided AN Hose

TFS-306S0600 Steam line plumbing kit, front of heads only, each TFS-306S0601 Steam line plumbing kit, front and rear of heads, each

#### **Steam Line Individual Components**

Steam line fitting, -4 AN male, each TFS-30600611

TFS-30600612 Steam line cap, each

TFS-30600613 Steam line fitting, 1/8" female NPT, 90°, each

TFS-30600615 Cylinder head coolant sensor plug and seal, 12mm, each



#### **Engine Priming Pump Kit** for Late Model Engines

Looking for an easy way to pre-lube your freshly-built LSX, Ford modular, or late model Hemi engine? Then look no farther than this engine priming pump kit from Trick Flow. Specifically designed just for late model engines with crank driven oil pumps, this pump kit allows easy pre-oiling of your engine. It can also be used to transfer non-flammable fluids such as gear lube and transmission fluid. The kit includes an engine priming/fluid transfer pump, a driveshaft, 10 ft. of -6 AN hose, and an assortment of fittings and adapters required to turn any 3/8" drill into an oil pumping machine!

TFS-90400 Engine priming pump kit, each



#### **Cylinder Head Porting Tools**

Trick Flow's cylinder head porting tools and accessories are essential for cleaning up ports, combustion chambers, and port-matching intake manifolds at home.

The Deluxe Cartridge Roll Kit (TFS-90001) for cast iron and aluminum cylinder heads includes (4) 60-grit cartridge rolls, (40) 80-grit rolls, and (40) 120-grit rolls in assorted sizes, plus two 1/4" shank mandrels and a durable plastic storage box.

The Carbide Deburring Set (TFS-90002) for aluminum heads and intakes includes one 3/8" oval, one 3/8" cylindrical, and one 3/8" tree-style bit. The bits are six inches long to reach deep inside the ports.

The Complete Port Match Tool Kit (TFS-K90015) includes the Deluxe Cartridge Roll Kit plus precision measuring instruments, two 3/8" oval carbide burrs, layout dye, and grinding wax. This kit works with both cast iron and aluminum heads.

Many of the tools custom head and manifold porters use in their own shops to turn out race-winning parts are also available individually.

TFS-K90015 TFS-90001	Complete port match tool kit, each Deluxe cartridge roll kit, each
TFS-90002	Carbide deburring set, single-cut for aluminum, set of 3
TFS-90003	L-square, 3" x 4", 90°, stainless steel, each
TFS-90004	Precision scribe, each
TFS-90005	Carbide burr, 2 <sup>3</sup> / <sub>8</sub> " long x 3/8" oval, 1/4" shank,
	single-cut for aluminum, each
TFS-90006	Centering scale, 24" long, each
TFS-90007	Layout dye, blue, 8 ounces, each
TFS-90008	Grinding wax, .43 ounces, each
TFS-90025	Carbide burr, 2 <sup>3</sup> / <sub>8</sub> " long x 3/8" oval, 1/4" shank, double-cut for aluminum and cast iron, each

#### **Cylinder Head Work Stands**

These Trick Flow cylinder head work stands are ideal for home porting, polishing, or CCing jobs. They'll work with most popular cylinder heads and disassemble for easy storage.

TFS-9100 Work stands, pair

#### **Engine Oil Supplement**

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Protect your high performance engine from the inside! Just a few short years ago engine oils had higher levels of zinc-dialkyl-dithiophosphate (ZDDP), an anti-wear additive crucial to preventing valvetrain wear in flat tappet camshaft engines. Modern oils have much lower levels of ZDDP, leaving all high-RPM racing, performance street, and marine applications as well as classic, vintage, and musclecar engines with flat tappet camshafts vulnerable to premature camshaft failure.

That's why Trick Flow engineered this oil supplement with increased levels of ZDDP and anti-wear additives. It even provides the extra protection engines need during the critical break-in period.

One bottle treats 5-9 quarts of conventional or synthetic oil and should be used at every oil change.

Oil supplement, 12 oz. bottle, each TFS-94000-12 Oil supplement, 12 oz. bottles, case of 12



# The Mustang That Could: BMR Racing Takes on American Endurance Racing with Help from Trick Flow!



It's fun to root for the underdog. It's even more fun to help the underdog win a few. When BMR Racing decided to build a new engine for their Fox-body Mustang to beat up on the BMWs and Porsches that usually win in American Endurance Racing, they turned to Trick Flow for high performance Twisted Wedge® 11R 205 heads, R-Series carb-syle EFI intake, Track Max® cam, and cast aluminum valve covers to get the job done.

With expert assembly handled by PowerNation TV's Engine Power's Mike Galley and Pat Topolinski, BMR's new 363 c.i.d. small block Ford makes upwards of 600 horsepower, revs to 8,000 RPM, and will hold together for nine hours at a stretch.

BMR Racing trusts Trick Flow to help them win races and earn a championship—you should too!





