

## **Installation Instructions for 51411, 51441, 51511 and 51541 Cylinder Heads for Small-Block Chevrolet**

### **\*\*IMPORTANT - READ THIS FIRST\*\* These Heads are Intended for Racing Use Only!!**

- Heads are cast using virgin 356-A alloy material and heat treated to a T6 temper
- Combustion chamber volume: 64cc or 72cc combustion chambers
- Intake runner volume 197cc as cast
- Intake valve 2.055" 11/32" stem diameter, 4.910" length
- Exhaust valve 1.600" 11/32" stem diameter, 4.910" length
- Exhaust ports are in stock location and are machined to standard bolt pattern
- Spring pocket 1.570" diameter, machined to utilize our spring cup for a 1.440"
- Premium bronze valve guides machined for .531" diameter seal
- Valve spring installed height: With a .060" spring cup you can achieve a 1.900" valve spring installed height.
- Valve seats are cast alloy designed for unleaded gasoline
- Spark plugs: *Angle plug head* - Gasket style seat, 14mm, 3/4" reach with 5/8" hex, *Straight plug head* - Tapered-style seat, 14mm, .460" reach with 5/8" hex. Always use anti-seize on plugs in aluminum heads.
- Custom guideplates for 5/16" pushrods are included. When installing guideplates, take note that one pushrod slot is longer than the other. The longer slot is for the intake valve pushrod.
- These heads do not have exhaust crossover passage and will not work on any vehicle requiring EGR.
- **Pushrods: Using proper length pushrods cannot be over emphasized!!** Good valve train geometry starts when the right length pushrod is used for your specific engine combination: Deck height, cam base circle, lifter length and choice of rocker arms. The fact is if you are using stock length pushrods your valve train is probably wrong. Before ordering pushrods use an adjustable pushrod checking tool to determine the proper length for your particular combination. Adjustable pushrod checking tool # 270-99726-2. **Always use heat treated pushrods with guideplates.**
- Rocker arms: Our stud location was established using standard aluminum extruded rocker arms and standard length valves. Always trial fit rockers before final assembly!
- Piston to valve clearance: Most performance applications will require machining of the valve reliefs for proper piston to valve clearance or consider a set of custom pistons. **This is a must-check operation because the valve locations are modified and do not use stock dimensions.**
- Head bolts or studs: We use stock dimension products. Check for possible guide plate and spring cup interference. It is not unusual for large diameter valve springs to require the use of 12 point fasteners.
- The head bolt washer located in between the two middle exhaust valve springs may require trimming due to spring cup interference. The edges should be "Clipped" to allow the washer to lay flat without contacting the spring cups.
- Intake manifolds: There are plenty of manifolds that do not match the flow requirements of this cylinder head. It pays to have your manifold checked.
- Stud girdles; Use a stud girdle that is designed for the JEG'S cylinder heads, the valve and stud locations are not stock OEM dimensions! Stud Girdle # 555-20500 with 3/8" adjusters was designed for this application.
- Intake gasket: Fel-Pro # 375-1205 or Mr.Gasket # 720-5821 or equivalent
- Exhaust Gasket: Fel-Pro # 375-1404 or Mr. Gasket # 720-5900 or equivalent
- Valve jobs: When you purchase our heads bare, the valve seats extend out of the chambers and require a top cut to blend the seat to the roof of the chamber so as not to create an edge on the seat, which would promote premature detonation.

**Any modification to the casting voids any warranty!**



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