



Dart

## 220 SBC Aluminum Cylinder Head

|                               |  |
|-------------------------------|--|
| <b>Part#</b>                  | 12100000 thru 12200000   |
| <b>Material:</b>              | 355T6 alum alloy   |
| <b>Comb Chambers:</b>         | 67cc as cast (CNC 71cc@4.030 / 72cc@4.155)   |
| <b>Intake Valve Dia:</b>      | 2.080", 2.100"   |
| <b>Intake Port volume:</b>    | 220cc as cast, FP-240cc  |
| <b>Intake Port Dim:</b>       | 2.200" x 1.275" (as cast) - 2.280" x 1.320" F/P  |
| <b>Int Port Location:</b>     | Stock  |
| <b>Intake Gasket:</b>         | Fel-Pro# 1207  |
| <b>Exh Valve Dia.:</b>        | 1.600" or 1.625"   |
| <b>Exh Port volume:</b>       | 81cc (as cast), 97cc (F/P)   |
| <b>Exhaust Port Dim:</b>      | 1.450w" x 1.300h" (as cast) (F/P) 1.690w" x 1.470h"  |
| <b>Exh Port Location:</b>     | Stock location & bolt pattern, Spread Exhaust has GM & Stahl spread pattern                                    |
| <b>Exhaust Gasket:</b>        | Std exhaust = Fel-Pro 1406 Spread Exhaust = Fel-Pro 1409   |
| <b>Flow, Intake:</b>          | Full Port CNC - 324 cfm @ .800 lift / 28"  |
| <b>Flow, Exhaust:</b>         | Full Port CNC - 251 cfm @ .800 lift / 28"  |
| <b>Head Bolts:</b>            | ARP 134-3601   |
| <b>Head Studs:</b>            | ARP 134-4001 or 234-4301 (12pt)  |
| <b>Manifold:</b>              | Alum Single Plane Dart (opening - 1.120"x 2.000") 5.500" tall  |
| <b>Milling:</b>               | Min. 58cc / .080" flat mill (.0065" = 1cc)   |
| <b>Pistons:</b>               | Most 23° aftermarket pistons.  |
| <b>Push Rod length:</b>       | Stock thru +.200" Should always measure (Stock length = 7.800")  |
| <b>Retainers:</b>             | Titanium (10 deg)  |
| <b>Spark Plug:</b>            | Angled .750" reach, gasketed. Autolite AR3933  |
| <b>Spring Cups:</b>           | 1.550" - ID locator  |
| <b>Spring Pockets</b>         | 1.550" OD (.030" deeper max)   |
| <b>Springs:</b>               | Our Assembly: 1.550D = 215# @ 1.950" / .680" max Isky# 9365<br>(optional) = 235# @ 1.950" / .750" max Comp 943 |
| <b>Valve Angles:</b>          | 23°  |
| <b>Valve Length:</b>          | 5.115" (+.200") .250" tip  |
| <b>Valve Stem Dia:</b>        | .3415" - 11/32"  |
| <b>Valve Train:</b>           | Shaft rocker .220"-.250" offset (can use .250" offset stud mount)  |
| <b>Valve Guides:</b>          | 1/2" OD Mag - bronze Cut for .530" PC seals (.002" press)  |
| <b>Valve Guide length:</b>    | 2.100"   |
| <b>Valve Guide clearance:</b> | .0014" - .0021" (with our .3415 dia. valve stem)   |
| <b>Valve Guide Spacing:</b>   | 1.890" moved .030" from stock  |
| <b>Valve Seats:</b>           | Ductile Iron, .006" press  |
| <b>Valve Seat dim.</b>        | Int. - 2.200" x 1.680" x .375" Exh - 1.680" x 1.350" x .375"   |
| <b>Valve Seat angles:</b>     | Int = 38° - 45° - 60° Exh = 38° - 45° - radius   |
| <b>Stud Girdle:</b>           | Use any standard girdle  |
| <b>Torque:</b>                | Head Bolts = 70 ft/lb<br>Rocker Studs = 45 ft/lb<br>Manifold = 35 ft/lb  |
| <b>Block Use:</b>             | Any SBC Iron or Aluminum   |
| <b>Weight:</b>                | 24 lbs   |