



18° Big Chief Aluminum Cylinder Head

Part#	18000000 – 18000000C
Material:	355-T61 alum alloy
Comb Chambers:	85cc as cast (95cc Tit, 100cc SS w/CNC)
Intake Valve Dia:	2.400"
Intake Port volume:	395cc as cast, SM-402cc, FP-424cc
Intake Port Dim:	1.800" x 2.500" (as cast), 1.810" x 2.525" (S/M), 1.890" x 2.530" (F/P)
Int Port Location:	Raised 1.500" Spread ports
Intake Gasket:	Fel-Pro# 1298
Exh Valve Dia.:	1.900"
Exh Port volume:	175cc (S/M), 185cc (F/P)
Exhaust Port Dim:	(As cast & S/M) 2.000" x 1.680", (F/P) 2.100" x 1.800"
Exh Port Location:	Raised .900" STD Chevy bolt pattern
Exhaust Gasket:	Mr. Gasket 5914
Flow, Intake:	(S/M) 444 cfm @ .800", (F/P) 492 cfm @ .900" lift/28"
Flow, Exhaust:	(S/M) 301 cfm @ .800", (F/P) 343 cfm @ .900" lift/28"
Manifold:	Dart Big Chief (opening - 1.750"x 2.350") 8.00" tall
Milling:	Min. 85cc / .020" max (.006" = 1cc) Flat mill only.
Pistons:	Must use pistons for Big Chief.
Push Rod length:	Should always measure
Retainers:	Titanium 10°
Spark Plug:	.750" reach, gasketed. Autolite AR3932
Spring Cups:	1.625" - .035 cup
Spring Pockets	1.740" OD for 1.625" cup (.030" deeper max)
Springs:	Our assembly: 1.625D = 275# @ 2.000" / .850" max
	Optional triple: 1.625T = 338# @ 2.100" / .900" max
Valve Angles:	Int - 18°, Exh - 9°, 4° cant
Valve Length:	Int - 6.600" Exh - 6.450" Our assemblies w/ SS – 6.380"
Valve Stem Dia:	.3415" - 11/32" 5/16 optional
Valve Train:	Jesel or T&D rocker system
Valve Guides:	1/2" OD Mag - bronze Cut for .500" PC seals (.002" press)
Valve Guide length:	3.000"
Valve Guide clearance:	.0014" - .0021" (with our .3415 dia. valve stem)
Valve Guide Spacing:	Widened for use on min. 4.500" bore
Valve Seats:	Ductile Iron, .006" press
Valve Seat dim.	Int. - 2.490" x 2.000" x .375" Exh - 2.000" x 1.600" x .375"
Valve Seat angles:	Int = 32° - 45° - 60° - 70° - 80° Exh = 37° - 45° - radius
Studs, head:	Must use Big Chief stud kit #66120015
Titanium Valves	Must use lash caps
Torque:	Head Bolts = 70 ft/lb Dart's inner head studs 3/8-7/16 = 50 ft/lb
	Manifold = 35 ft/lb
Block Use:	Mark IV, Gen V, and Gen VI with proper head gasket
Weight:	42 lbs