

# 165cc SBF Outlaw Street Head

The Small Port, High Velocity, Emission Legal Torque Monster



## Specifications, Features, and Optional Supporting Components

Head Torque -----65-70 Ft. Lbs. with 7/16" stud  
 Rocker Stud Torque -----55-60 Ft. Lbs.  
 Rocker Pedestal Torque -----25-30 Ft. Lbs.  
 Intake Port Gasket, 1.200" x 2.000" w/ 3/8" radius ----- AFR #6828  
 ----- Fel-Pro 1250

**Important:** Do not port match your intake manifold to Fel-Pro gasket as it does not precisely fit AFR heads.

Exhaust Port Gasket -----Fel-Pro #1415, AFR #6837  
 Head Gasket ----- Fel-Pro #1011-1, AFR #6808  
 Head Bolts & Studs ----- Standard ARP, AFR #6323 & #6322  
 Head Bolt Washers ----- Manley, AFR #6320  
 Stud Girdle ----- AFR #6207  
 Suggested Manifold ----- RPM Performer, Performer  
 Spark Plug Starting Range ----- Autolite 3924  
 Combustion Chambers -----58cc  
 Spring Pocket can be cut to 1.625, no deeper.  
 Valve Spacing ----- Standard  
 Rocker Arms ----- Standard, will not accept rail rocker arms  
 Valve Angle ----- Standard  
 Angle Mill (10cc Maximum Optional Mill) ----- .008" per cc  
 Flat Mill (4cc Maximum Optional Mill) ----- .006" per cc

**Note:** Milling Head Deck Will Affect Flow Numbers

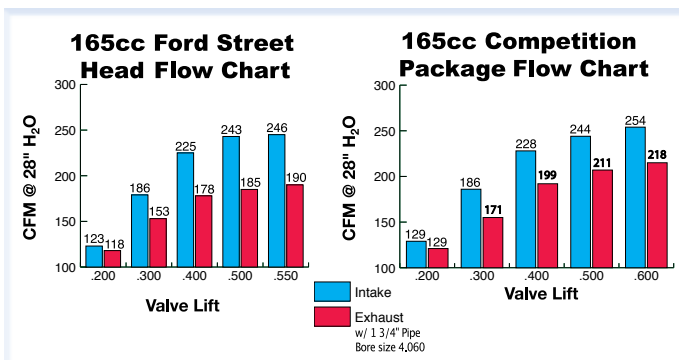
For the ultimate small block Ford street car, you've got to use AFR's all new 165cc emissions legal cylinder heads. Unlike some aftermarket heads, AFR's Ford head (CARB EO #250-3) fits all your stock components; no special parts are required (see footnotes page 47). With lightweight 8mm 1.900 intake valves, 1.600" exhaust valve, and combustion chamber volume of 58cc, and 68cc exhaust ports, AFR's new 165cc Ford head is perfect for 289 and 302 engines operating from idle to 6000 rpm. A 3/4" thick head deck makes the AFR head ideal for nitrous or blower applications. Will not accept rail rocker arms. Hardened push rods required on all applications. Note: 1986 5.0L must have piston notched for clearance.

**Note:** Hydraulic roller cams typically experience valve float at 6000-6200 rpm because of their fast ramp rates. AFR suggests you upgrade your springs to AFR part #8605, 1.290 O.D. with higher spring pressures to reduce chances of valve float associated with rpm's 6200 or higher.

Pairs of Cylinder Heads Complete With Parts & Ready To Install			
Runner Volume	Stud or Pedestal	Combustion Chamber	Part #
<b>CNC Street Porting</b>			
*165cc	Stud	58cc	1402
*165cc	Pedestal	58cc	1472
<b>CNC Competition Package Street Porting</b>			
165cc	Stud	58cc	1404
<b>Stage 1- Bare Heads No Porting or Parts</b>			
*140cc	Stud	55cc	140
*140cc	Pedestal	55cc	147

\* Only models with heat riser (marked by an asterisk) are emissions legal, all others are not legal for sale or use on pollution controlled motor vehicles in the United States.

Basic Package Components	Part #
100% CNC Ported Combustion Chambers, 100% CNC Ported Exhaust Ports, 100% CNC Ported Intake Ports Competition 3-angle Valve Job.	
Bead Lock Intake Valve, 1.900" stud mount	AFR #7249
Bead Lock Exhaust Valve, 1.600" stud mount, 58cc	AFR #7250
Intake Valve, 1.900 Pedestal	AFR #7262
Exhaust Valve, 1.600 Pedestal	AFR #7264
1.290" OD Hydraulic Dual Valve Spring, 135 lbs on seat .600" maximum lift (upgrades available)	AFR #8017 Comp PKG #8019
7° Chrome Moly Retainers	AFR #8514
7° Bead Locks Valve Keepers	AFR #9007
3/8" Rocker Studs	AFR #6410
5/16" Guide Plates	AFR #6107
Viton Valve Seals	AFR #6612
Hardened Spring Cup	AFR #8042
Intake Valve Seats	AFR #9059
Exhaust Valve Seats	AFR #9069
Bronze Valve Guides	AFR #9051
Thermactor Air Injector	AFR #6226



# 185cc SBF Outlaw Street Head

The Ultimate Bolt-On Emission Legal Street/Strip Weapon



If you need the world's finest street/strip small block Ford head, check out AFR's all new 185cc intake port emissions legal (CARB EO #250-3) cylinder heads. With lightweight 8mm 2.020 intake valves, 1.600 exhaust valves, combustion chamber volumes of 58cc or 72cc, and 70cc exhaust ports, AFR's new 185cc Ford head is designed for 302-351 cid engines operating from 1500 rpm to 6500 rpm. A 3/4" thick head deck makes the AFR head ideal for nitrous or blower applications. Will not accept rail rocker arms. Hardened push rods required on all applications. High flow 2.020 valves might require aftermarket pistons notched for valve clearance. Note: 1986 5.0L must have pistons notched for clearance. See footnotes page 47 for additional information.

**Note:** Hydraulic roller cams typically experience valve float at 6000-6200 rpm because of their fast ramp rates. AFR suggests you upgrade your springs to AFR part #8605, 1.290 O.D. with higher spring pressures to reduce chances of valve float associated with rpm's 6200 or higher. 185cc competition package exhaust port is raised .125.

## Specifications, Features, and Optional Supporting Components

Head Torque	-----	100 Ft. Lbs. with 1/2" stud
Rocker Stud Torque	-----	55-60 Ft. Lbs.
Rocker Pedestal Torque	-----	25-30 Ft. Lbs.
Intake Port Gasket, 1.250" x 2.050" w/ 3/8" radius	-----	AFR #6832 / Fel-Pro #1262
<b>Important: Do not port match your intake manifold to Fel-Pro gasket as it does not precisely fit AFR heads.</b>		
Exhaust Port Gasket	-----	Fel Pro #1415, AFR #6837
Head Gasket	-----	Fel Pro #1011-1, AFR #6808
Head Bolts & Studs	-----	Standard ARP, AFR #6318 & #6317
Head Bolt Washers	-----	Manley, AFR #6320
Head Bolt Bushings, 1/2"-7/16"	-----	Standard ARP, AFR #6324
Stud Girdle	-----	AFR #6207
Suggested Manifold	-----	RPM Performer, Vic Jr.
Spark Plug Starting Range	-----	Autolite 3924
Combustion Chambers	-----	58cc, 60cc, or 72cc
Spring Pocket can be cut to 1.625, no deeper.		
Valve Spacing	-----	Standard
Rocker Arms	-----	Standard, will not accept rail rocker arms
Valve Angle	-----	Standard
Angle Mill (10cc Maximum Optional Mill)	-----	.008" per cc
Flat Mill (4cc Maximum Optional Mill)	-----	.006" per cc

**Note:** Milling Head Deck Will Affect Flow Numbers.

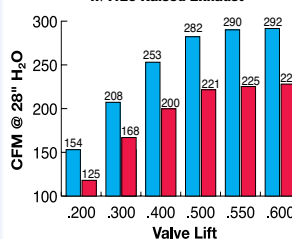
### Pairs of Cylinder Heads Complete With Parts & Ready To Install

Runner Volume	Stud or Pedestal	Combustion Chamber	Part #
<b>CNC Street Porting</b>			
*185cc	Stud	58cc	1422
*185cc	Pedestal	60cc	1492
*185cc	Stud	72cc	1420
<b>Stage 1- Bare Heads No Porting or Parts</b>			
*170cc	Stud	55cc	142
*170cc	Pedestal	55cc	149
<b>CNC Ported Competition Package</b>			
185cc	Stud	58cc	1426
185cc	Stud	72cc	1428

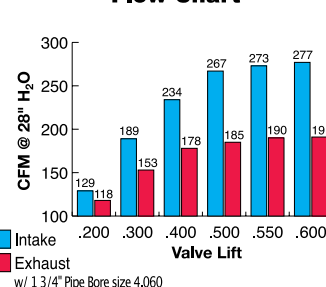
\* Only models with heat riser (marked by an asterisk) are emissions legal, all others are not legal for sale or use on pollution controlled motor vehicles in the United States.

Basic Package Components	Part #
100% CNC Ported Combustion Chambers, 100% CNC Ported Exhaust Ports, 100% CNC Ported Intake Ports Competition 3-angle Valve Job.	
Bead Lock Intake Valve, 2.020" stud mount	AFR #7251
Bead Lock Exhaust Valve, 1.600" stud mount	AFR #7250
Intake Valve, 2.020 Pedestal	AFR #7263
Exhaust Valve, 1.600 Pedestal	AFR #7264
1.290" OD Hydraulic Dual Valve Spring, 135 lbs. on seat, .600" maximum lift (upgrades available)	AFR #8017 Comp PKG #8019
7° Chrome Moly Retainers	AFR #8514
7° Bead Locks Valve Keepers	AFR #9007
3/8" Rocker Studs	AFR #6410
5/16" Guide Plates	AFR #6107
Viton Valve Seals	AFR #6612
Hardened Spring Cup	AFR #8042
Intake Valve Seats	AFR #9058
Exhaust Valve Seats	AFR #9069
Bronze Valve Guides	AFR #9051
Thermactor Air Injector	AFR #6226

**185cc Competition Package Flow Chart**  
w/ .125 Raised Exhaust



**185cc Ford Street Head Flow Chart**



# 205cc SBF Outlaw Race Heads

The Most Powerful Standard Street/Strip Head Ever



## Specifications, Features, and Optional Supporting Components

Head Torque-----	100 Ft. Lbs. with 1/2" stud
Rocker Stud Torque-----	55-60 Ft. Lbs.
Intake Port Gasket, 1.280" x 2.100" w/ 3/8" radius-----	AFR#6832 /Fel-Pro #1262
<b>Important: Do not port match your intake manifold to Fel-Pro gasket as it does not precisely fit AFR heads.</b>	
Exhaust Port Gasket-----	Fel Pro #1487, AFR #6839
Head Gasket-----	Fel Pro #1011-1, AFR #6808
Head Bolts & Studs-----	Standard ARP, AFR #6318,6317
Head Bolt Washers-----	Manley, AFR #6320
Stud Girdle-----	AFR #6207
Suggested Manifold-----	Vic Jr., Super Victor
Spark Plug Starting Range-----	Autolite 3922
Combustion Chambers-----	58cc or 72cc
Spring Pocket can be cut to 1.625, no deeper.	
Valve Spacing-----	Standard
Rocker Arms-----	Standard (will not accept rail rockers)
Valve Angle-----	Standard
Angle Mill (6cc Maximum Optional Mill)-----	.008" per cc
Flat Mill (3cc Maximum Optional Mill)-----	.006" per cc

**Note:** Milling Head Deck Will Affect Flow Numbers.

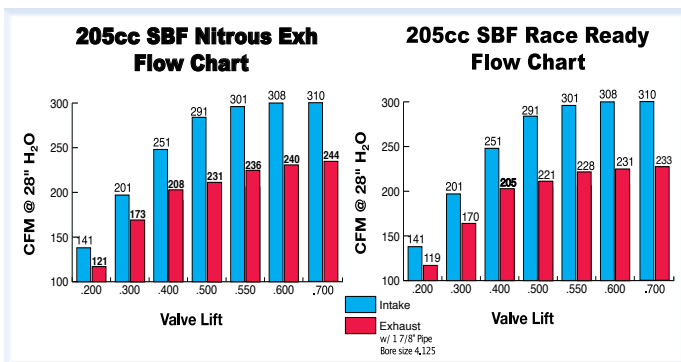
If you're looking for the world's finest street/strip head available, AFR's 205 head is your answer. With lightweight 8mm 2.080 intake valves, 1.600 exhaust valves this head moves tremendous volumes of air through conservative runner volumes, spelling big torque and horsepower numbers. With combustion chamber volumes of 58cc or 72cc accompanied by 70cc exhaust parts which are raised .125 higher than stock, AFR's new 205cc is the ultimate choice for 331 through 392 engines operating from 3500 RPM to 8000 RPM. AFR's trademark 3/4" thick head deck makes them ideal for heavy nitrous or blower applications. With available optional nitrous or blower exhaust ports featuring 73cc ultra high flowing exhaust ports.

**Note:** 2.080 valves will require aftermarket pistons notched for valve clearance. See footnotes page 47 for additional information.

Pairs of Cylinder Heads Complete With Parts & Ready To Install			
Runner Volume	Rocker Type	Combustion Chamber	Part #
<b>Race Ready CNC Ported Heads</b>			
205cc	Stud	58cc	1450
205cc	Stud	72cc	1458
<b>Stage 1- Bare Heads No Porting or Parts</b>			
190cc	Stud	55cc	145

205cc Nitrous Exhaust Port			
Runner Volume	Rocker Type	Combustion Chamber	Part #
<b>CNC Street Porting</b>			
205cc	Stud	58cc	1452

Basic Package Components	Part #
100% CNC Ported Combustion Chambers, 100% CNC Ported Exhaust Ports, 100% CNC Ported Intake Ports Competition 3-angle Valve Job.	
Bead Lock Intake Valve, 2.080" x 100L	AFR #7261
Bead Lock Exhaust Valve, 1.600" x 100L	AFR #7254
1.550" OD Roller Dual Valve Spring 225 lbs. on seat, .710" maximum lift	AFR #8000
10° 4140 Chrome Moly Steel Retainers	AFR #8511
10° Bead Locks Valve Keepers	AFR #9009
7/16" Rocker Studs	AFR #6405
5/16" Guide Plates	AFR #6107
Viton Valve Seals	AFR #6612
Hardened Spring Cup	AFR #8045
Intake Valve Seats	AFR #9058
Exhaust Valve Seats	AFR #9069
Bronze Valve Guides	AFR #9051



# 225cc SBF Outlaw Race Heads

The Best 20° In-Line Head You Can Buy



Are you looking for big torque and horsepower numbers? Only AFR's 225cc will provide you with exactly that. With the largest intake and exhaust runner volumes for our in-line Ford line up, these are the ultimate for NMRA Renegade or Hot Street classes. With lightweight 8mm 2.080 intake valves and 1.600 exhaust valves these heads move massive amounts of air. Combustion chamber volumes of 58cc or 72cc accompanied by 80cc exhaust ports which are raised .375 higher than stock. AFR's new 225cc is the perfect choice for 347 through 427 CI Windsor engines operating between 4500 to 8500 rpm. Our trademark 3/4" thick head deck makes them ideal for heavy nitrous or blower applications.

**Note:** 2.080 valves will require aftermarket pistons notched for valve clearance. See footnotes page 47 for additional information.

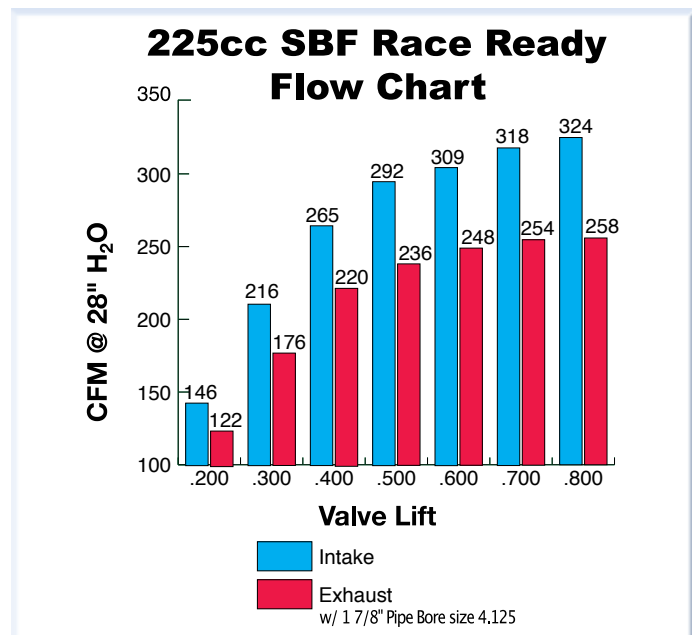
Basic Package Components	Part #
100% CNC Ported Combustion Chambers 100% CNC Ported Exhaust Ports 100% CNC Ported Intake Ports Competition 3-angle Valve Job	
Bead Lock Intake Valve, 2.080" x 100L	AFR #7261
Bead Lock Exhaust Valve, 1.600" x 100L	AFR #7254
1.550" OD Roller Dual Valve Spring 225 lbs. on seat, .710" maximum lift	AFR #8000
10° 4140 Chrome Moly Steel Retainers	AFR #8511
10° Bead Locks Valve Keepers	AFR #9009
7/16" Rocker Studs	AFR #6405
5/16" Guide Plates	AFR #6107
Viton Valve Seals	AFR #6612
Hardened Spring Seat	AFR #8045
Intake Valve Seats	AFR #9058
Exhaust Valve Seats	AFR #9069
Bronze Valve Guides	AFR #9051

## Specifications, Features, and Optional Supporting Components

Head Torque-----	100 Ft. Lbs. with 1/2" stud
Rocker Stud Torque -----	55-60 Ft. Lbs.
Intake Port Gasket, 1.400" x 2.250" w/ 3/8" radius ----	AFR #6812 or Fel-Pro 1262R
<b>Important:</b> Do not port match your intake manifold to Fel-Pro gasket as it does not precisely fit AFR heads.	
Exhaust Port Gasket -----	Fel Pro #1487, AFR #6839
Head Gasket -----	Fel Pro #1011-1, AFR #6808
Head Bolts & Studs -----	Standard ARP, AFR #6318,6317
Head Bolt Washers -----	Manley, AFR #6320
Stud Girdle-----	AFR #6207
Suggested Manifold -----	Vic Jr., Super Victor
Spark Plug Starting Range-----	Autolite 3922
Combustion Chambers -----	58cc or 72cc
Spring Pocket can be cut to 1.580, no deeper.	
Valve Spacing-----	Standard
Rocker Arms-----	Standard (will not accept rail rockers)
Valve Angle -----	Standard
Angle Mill (6cc Maximum Optional Mill) -----	.008" per cc
Flat Mill (3cc Maximum Optional Mill) -----	.006" per cc

**Note:** Milling Head Deck Will Affect Flow Numbers.

Pairs of Cylinder Heads Complete With Parts & Ready To Install			
Runner Volume	Rocker Type	Combustion Chamber	Part #
<b>Race Ready CNC Ported Heads</b>			
225cc	Stud	58cc	1451
225cc	Stud	72cc	1456
<b>Stage 1 Bare Heads, No Porting or Parts</b>			
210cc	Stud	53cc	146



# 165cc & 185cc SBF Street/Strip Outlaw Heads

No Heat Riser Or Air Pump Holes For The Maximum Street/Strip Performance



## Specifications, Features, and Optional Supporting Components

Head Torque ----- 100 Ft. Lbs. with 1/2" stud  
 Rocker Stud Torque ----- 55-60 Ft. Lbs.  
 Rocker Pedestal Torque ----- 25-30 Ft. Lbs.  
 Intake Port Gasket, 1.200" x 2.000" w/ 3/8" radius ----- AFR #6828 / Fel-Pro #1250  
 Intake Port Gasket, 1.250" x 2.050" w/ 3/8" radius ----- AFR #6832 / Fel-Pro #1262

**Important:** Do not port match your intake manifold to Fel-Pro gasket as it does not precisely fit AFR heads.

Exhaust Port Gasket ----- Fel Pro #1415, AFR #6837  
 Head Gasket ----- Fel Pro #1011-1, AFR #6808  
 Head Bolts & Studs ----- Standard ARP, AFR #6323 & #6322  
 Head Bolt Washers ----- Manley, AFR #6320  
 Head Bolt Bushings, 1/2"-7/16" ----- Standard ARP, AFR #6324  
 Stud Girdle ----- AFR #6207  
 Suggested Manifold ----- RPM Performer, Vic Jr.  
 Spark Plug Starting Range ----- Autolite 3924  
 Combustion Chambers ----- 58cc or 72cc  
 Spring Pocket can be cut to 1.625, no deeper.  
 Valve Spacing ----- Standard  
 Rocker Arms ----- Standard, will not accept rail rocker arms  
 Valve Angle ----- Standard  
 Angle Mill (10cc Maximum Optional Mill) ----- .008" per cc  
 Flat Mill (4cc Maximum Optional Mill) ----- .006" per cc

**Note:** Milling Head Deck Will Affect Flow Numbers.

These heads come ready for the maximum street/strip Small Block Ford performance possible. They are not emissions legal. With the 165 coming with lightweight 8mm 1.900 intake and 1.600 exhaust valves and the 185 sporting 8mm 2.020 intake and 1.600 exhaust valves. Our 165cc features 58cc combustion chambers while the 185cc gives both 58cc and 68cc options with 70cc exhaust ports. Both the 165cc and 185cc have available as an option nitrous or blower exhaust ports featuring a 70cc ultra high flowing exhaust port. With AFR's trademark 3/4" thick head deck, it's no problem handling that additional cylinder pressure. Each head is also drilled for the larger 1/2" head bolt hole for maximum head gasket retention as a standard feature of this serious race piece in street disguise.

**Note:** Hydraulic roller cams typically experience valve float at 6000-6200 rpm because of their fast ramp rates. AFR suggests you upgrade your springs to AFR part #8605, 1.290 O.D. with higher spring pressures to reduce chances of valve float associated with rpm's 6200 or higher. 185cc competition package exhaust port is raised .125. See footnotes on page 47 for additional information.

### Pairs of Cylinder Heads Complete With Parts & Ready To Install

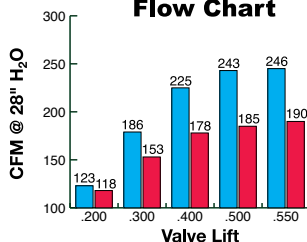
Runner Volume	Rocker Type	Combustion Chamber	Part #
<b>185cc Street CNC Ported Heads</b>			
185cc	Stud	58cc	1388
185cc	Stud	72cc	1387
<b>CNC Ported Competition Package</b>			
185cc	Stud	58cc	1381
185cc	Stud	72cc	1383
<b>165cc Street CNC Ported Heads</b>			
165cc	Stud	58cc	1399

### 165cc & 185cc Nitrous Exhaust Port

Runner Volume	Rocker Type	Combustion Chamber	Part #
<b>Options</b>			
185cc	Stud	58cc	1389
165cc	Stud	58cc	1396

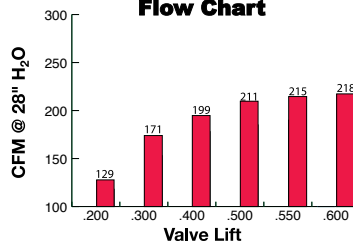
Basic Package Components	Part #
<b>100% CNC Ported Combustion Chambers</b>	
<b>100% CNC Ported Exhaust Ports</b>	
<b>100% CNC Ported Intake Ports</b>	
<b>Competition 3-angle Valve Job</b>	
Bead Lock Intake Valve, 1.900 stud mount	AFR #7249
Bead Lock Intake Valve, 2.020" stud mount	AFR #7251
Exhaust Valve, 1.600" stud mount	AFR #7250
1.290" OD Hydraulic Dual Valve Spring, 135 lbs. on seat, .600" maximum lift (upgrades available)	AFR #8017 Comp PKG APR #8019
7° Chrome Moly Retainers	AFR #8514
7° Bead Locks Valve Keepers	AFR #9007
3/8" Rocker Studs	AFR #6410
5/16" Guide Plates	AFR #6107
Viton Valve Seals	AFR #6612
Hardened Spring Cup	AFR #8042
Intake Valve Seats 165cc	AFR#9059
Intake Valve Seats 185cc	AFR #9058
Exhaust Valve Seats	AFR #9069
Bronze Valve Guides	AFR #9051

**165cc Ford Street Head Flow Chart**



For 165cc competition numbers see page 27.

**165cc & 185cc Nitrous Exhaust Flow Chart**



For 185cc competition flow numbers see page 28.

**185cc Ford Street Head Flow Chart**

