Port Flow Analyzer v3.0			Performance World							
Test: PW BBM 84210			www.performance-world.com							
Folder: Mopar									Page: 1	
Head #:					Bore Adapter Diameter: 4.38"					
Customer:					Int Port Adapter: Radiused Inlet					
Operator:					Exh Port Adapter: Short "stub stack"					
Test Comments:										
PW 84210 BB Mopar aluminum head										
Report of:					Tested at	Corr to	# Vlvs	Vlv Dia	Stem Dia	Port Area
Comparing				Int:	28"	28.0"	1	2.14"	.341"	.00 sq in
1 Cylinders				Exh:	28"	28.0"	1	1.81"	.341"	.00 sq in

Port	Lift	L/D	Avg CFM	Cyl 1 CFM
Intake	0.100	0.047	68.4	68.4
Intake	0.200	0.093	143.0	143.0
Intake	0.300	0.140	204.8	204.8
Intake	0.400	0.187	246.4	246.4
Intake	0.500	0.234	267.5	267.5
Intake	0.600	0.280	277.0	277.0
Intake	0.700	0.327	277.0	277.0
Exhaust	0.100	0.055	54.2	54.2
Exhaust	0.200	0.110	105.6	105.6
Exhaust	0.300	0.166	144.0	144.0
Exhaust	0.400	0.221	163.9	163.9
Exhaust	0.500	0.276	175.6	175.6
Exhaust	0.600	0.331	181.9	181.9
Exhaust	0.700	0.387	185.0	185.0

NOTE: ALL FLOWBENCHES ARE NOT CREATED EQUAL!
Data from one bench to the next can be vastly different.
If you are modifying this head, it is important to "baseline"
first to ensure accuracy.
The data on this sheet is for reference only.

Head File: 84210
Head Comments:
PW 84210 BB Mopar aluminum head

Head Number			Customer	
Intake			Exhaust	
	Layout:	1 valve & 1 port	Layout:	1 valve & 1 port
	Valve Diameter, in	2.14"	Valve Diameter, in	1.81"
	Stem Diameter, in	.341"	Stem Diameter, in	.341"
	Throat Diameter, in		Throat Diameter, in	
	Avg Seat Angle, deg	45	Avg Seat Angle, deg	45
	Port Shape:	Rectangular	Port Shape:	Square
	Port Volume, ccs	220cc	Port Volume, ccs	74cc
	Avg Port Diameter, in		Avg Port Diameter, in	
	Avg Port Height, in		Avg Port Height, in	
	Port Length, in		Port Length, in	

Specifications 84210	
Material	A356 Aluminum
Combustion Chamber CC	82cc
Intake Port Volume CC	220cc
Intake Port Dimension	2.30" x 1.18"
Exhaust Port Volume CC	74cc
Exhaust Port Dimension	1.715" x 1.25"
Exhaust Port Location	OE Stock
Spark Plug Location	Angled (Check Header Tube Clearance)
Intake Valve Diameter	2.14"
Exhaust Valve Diameter	1.81"
Valve Stem Diameter	11/32" (.343")
Valve Angle	15 Degree
Valve Seat Machining	3-Angle
Valve Spring Pocket I.D.	1.705"
Valve Guide Material	Manganese Bronze
Valve Guide O.D.	0.530"
Deck Thickness	5/8"
Rocker Shaft Design	OE Stock
Valve Cover Mounting	OE Stock

Hyd Flat Tappet (up to .550" lift)		
Suggested Components	**Size**	**Brand**
Intake Valves	2.14" x 4.873" x 11/32"	PW 360022
Exhaust Valves	1.81" x 4.908" x 11/32"	PW 360018
Installed Height	Per Camshaft Manufacturer	
Valve Springs	Per Camshaft Manufacturer	
Valve Retainers	Per Spring Manufacturer	
Valve Locks	11/32" Single Groove	
Valve Seals	11/32" x .530"	PW 360480
Valve Spring Cups		PW 360117
Spark Plugs	Champion RC12YC or Equivalent	

Cylinder Head Checklist

All PWHEADS “bare” cylinder heads are sold ready for assembly.

What this means is the heads are ready for the assembly process, but still MUST be checked per the following list below. This includes a visual inspection. Check all cylinders and measurements as you normally would for any engine assembly.

It is the responsibility of the assembly technician/installer to:

1) Check valves for proper seating. Lap them and check surfaces.
2) Check guide to valve stem clearance. Clearance as required.
3) Check valve guide O.D. and ensure you have the correct seals.
4) Check valve springs for coil bind height and ensure they are correct for your camshaft.
5) Check for correct installed height on valve springs. Do this with inserts installed. Shim as necessary.
6) Check for retainer to top of guide clearance. Do this with inserts installed.
7) Use a non-hardening sealer on the rocker arm studs for applications where the threads run into a port such as the Small Block Chevrolet intake.
8) After setting the guideplates in place, torque the rocker studs down to 45 lb-ft in three stages.
9) Install sensors or pipe plugs in any open external water jacket holes if applicable.
10) Don’t forget to check for proper pushrod length after heads are installed.

Any questions, please contact your engine builder or e-mail sales@performance-world.com