



Port Flow Analyzer v3.0 Performance World  
 Test: PW SBF 58205R [www.performance-world.com](http://www.performance-world.com)  
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Head #: Bore Adapter Diameter: 4.00"  
 Customer: Int Port Adapter: Radiused Inlet  
 Operator: Exh Port Adapter: Short "stub stack"

Test Comments:  
 PW 58205R SB Ford 205 Full CNC. Note:

Report of:	Tested at	Corr to	# Vlvs	Vlv Dia	Stem Dia	Port Area
Comparing	28"	28.0"	1	2.08"	8mm	0.00 sq in
1 Cylinders	Exh: 28"	28.0"	1	1.60"	8mm	0.00 sq in

Port	Lift	L/D	Avg CFM	Cyl 1 CFM
Intake	0.100	0.048	65.5	65.5
Intake	0.200	0.096	123.7	123.7
Intake	0.300	0.144	183.4	183.4
Intake	0.400	0.192	239.2	239.2
Intake	0.500	0.240	267.6	267.6
Intake	0.600	0.288	287.1	287.1
Intake	0.700	0.337	298.3	298.3
Exhaust	0.100	0.063	61.3	61.3
Exhaust	0.200	0.125	119.1	119.1
Exhaust	0.300	0.188	167.8	167.8
Exhaust	0.400	0.250	203.6	203.6
Exhaust	0.500	0.313	225.6	225.6
Exhaust	0.600	0.375	235.7	235.7
Exhaust	0.700	0.439	240.1	240.1

**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: 58205R  
 Head Comments:  
 PW 58205R SB Ford 205 Full CNC

Head Number	Customer
Intake	Exhaust
Layout: 1 valve & 1 port	Layout: 1 valve & 1 port
Valve Diameter, in 2.08"	Valve Diameter, in 1.60"
Stem Diameter, in 8mm	Stem Diameter, in 8mm
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 197cc	Port Volume, ccs 68cc
Avg Port Diameter, in	Avg Port Diameter, in
Avg Port Height, in	Avg Port Height, in
Port Length, in	Port Length, in

**Specifications 58205R**

Material	A356 Aluminum
Combustion Chamber CC	60cc
Intake Port Volume CC	197cc
Intake Port Dimension	2.13" x 1.28"
Exhaust Port Volume CC	68cc
Exhaust Port Dimension	1.40" x 1.40" Raised .125"
Spark Plug Location	OEM
Intake Valve Diameter	2.08"
Exhaust Valve Diameter	1.60"
Valve Stem Diameter	8mm (.313")
Valve Spring Pocket I.D.	1.64"
Valve Guide Material	Manganese Bronze
Valve Guide O.D.	0.490" (.560" at base)
Rocker Stud Thread Size	7/16"x14
Valve Cover Mounting	OEM
Valve Angle	20 Degree
Valve Seat Machining	Multi-Angle
Oiling	Through Pushrod

<b>Suggested Components</b>	<b>Size</b>	<b>Brand</b>
Intake Valves	2.08" x 5.00" x 8mm	PW #360042
Exhaust Valves	1.60" x 5.03" x 8mm	PW #360047
Valve Seals	8mm x .500" Viton	PW #360487
Head Gaskets		Fel-Pro #1011-1
Intake Gasket		Fel-Pro #1262
Exhaust Gasket		Fel-Pro #1487
Head Bolts	(7/16")	ARP #154-3605
Head Bolts	(1/2")	ARP #154-3603
Head Studs	(1/2")	ARP #154-4003
Pushrod Guide Plates	5/16" Flat	Comp #4835-8 (Adjustable)
Spark Plugs	14mm x .750" Gasketed	Autolite 3922



# 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 [tech@performance-world.com](mailto:tech@performance-world.com)