



Port Flow Analyzer v3.0 Performance World
 Test: PW LS3 68276R 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 68276R Chevrolet LS3 aluminum head Full CNC

Report of:	Tested at	Corr to	# Vlvs	Vlv Dia	Stem Dia	Port Area
Comparing	Int: 28"	28.0"	1	2.165"	.313"	.00 sq in
1 Cylinders	Exh: 28"	28.0"	1	1.59"	.313"	.00 sq in

Port	Lift	L/D	Avg CFM	Cyl 1 CFM
Intake	0.100	0.046	74.1	74.1
Intake	0.200	0.092	160.0	160.0
Intake	0.300	0.139	209.7	209.7
Intake	0.400	0.185	262.1	262.1
Intake	0.500	0.231	302.1	302.1
Intake	0.600	0.277	323.1	323.1
Intake	0.700	0.323	337.6	337.6
Intake	0.750	0.346	343.3	343.3
Exhaust	0.100	0.063	56.1	56.1
Exhaust	0.200	0.125	119.1	119.1
Exhaust	0.300	0.188	169.8	169.8
Exhaust	0.400	0.251	212.1	212.1
Exhaust	0.500	0.313	238.9	238.9
Exhaust	0.600	0.376	251.0	251.0
Exhaust	0.700	0.439	258.7	258.7
Exhaust	0.750	0.470	260.5	260.5

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: 68276R
 Head Comments:
 PW 68276R Chevrolet LS3 aluminum head Full CNC

Head Number	Customer
Intake	Exhaust
Layout: 1 valve & 1 port	Layout: 1 valve & 1 port
Valve Diameter, in 2.165"	Valve Diameter, in 1.59"
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: Rectangle	Port Shape: Round
Port Volume, ccs 276cc	Port Volume, ccs 92cc
Avg Port Diameter, in	Avg Port Diameter, in
Avg Port Height, in	Avg Port Height, in
Port Length, in	Port Length, in

Specifications 68276R

Material	A356 Aluminum
Combustion Chamber CC	68cc
Intake Port Volume CC	276cc
Intake Port Dimension	1.30" x 2.61" Rectangle
Exhaust Port Volume CC	92cc
Exhaust Port Dimension	1.475" x 1.65" D-Shape
Exhaust Port Location	OE Stock
Spark Plug Location	OE Stock
Intake Valve Size	2.165" x 4.89"
Exhaust Valve Size	1.59" x 4.91"
Valve Stem Diameter	8mm
Valve Angle	15 Degree
Valve Seat Machining	3-Angle
Valve Spring Pocket I.D.	1.30"
Valve Guide Material	Manganese Bronze
Valve Guide O.D. (top)	.502"
Valve Guide O.D. (base)	.560"
Deck Thickness	5/8"
Rocker Design	LS3 Rails Required
Valve Cover Mounting	OE Stock

Hydraulic Roller (up to .625" lift)

Suggested Components	Size	Brand
Intake Valves	2.165" x 4.89"	PW 360050
Exhaust Valves	1.59" x 4.91"	PW 360049
Valve Springs	Beehive	PAC PAC-1219
Valve Retainers	Steel	PAC PAC-R311
Valve Locks		PAC PAC-L8113
Valve Seals	8mm Viton	PW 360488
Valve Spring Locators		PAC PAC-S111
Spark Plugs	Champion RC12YC or Equivalent	

**** NOTE!! THREAD SEALANT MUST BE USED ON ROCKER BOLTS AS THREADS INTERSECT INTAKE PORTS!**

**** NOTE!! ROCKER BOLTS MUST BE TIGHTENED WHEN LIFTER ON BASE CIRCLE ONLY!!**

OR MAY RESULT IN STRIPPED THREADS!!



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