



# Pro Action™ Big Block Chevy Cylinder Head #11038

## DESCRIPTION

**RHS® Pro Action™ Big Block Chevy cylinder head, CNC Ported bare casting  
aluminum, 376cc intake runner, 121cc combustion chamber, 2.300" intake/1.880" exhaust valves**

## Specifications

	Intake	Exhaust
<b>Port Volume:</b>	376cc	135cc
<b>Port Dimension:</b>	1.700" X 2.450"	1.560" X 1.900"
<b>Port Location:</b>	Stock	raised .500"
<b>Valve Angle:</b>	24°(stock angle is 26°)	15° (stock angle is 17°)
<b>Valve Head Diameter:</b>	2.300"	1.880"
<b>Valve Length:</b>	5.468" (std length + .250")	5.468" (std length + .100")
<b>Valve Seat Dimensions:</b>	2.380" X 1.900" X .375"	2.006" X 1.900" X .375"
<b>Valve Seat Angles:</b>	40/45/60/75	40/45/Radius
<b>Valve Guide Diameter:</b>	11/32"	11/32"
<b>Valve Guide Dimensions:</b>	.502" O.D. X 2.100"L X .530" boss dia.	.502" O.D. X 2.100"L X .530" boss dia.
<b>Valve Guide Material:</b>	Premium bronze material for superior heat dissipation and longer life	
<b>Material:</b>	Aluminum	
<b>Chamber Volume:</b>	121cc	
<b>Spark Plug Location:</b>	Optimized for best performance	
<b>Spark Plug Type:</b>	14mm, .750" reach, 5/8" hex, flat gasket style	
<b>Spring Pocket Diameter:</b>	1.625"	
<b>Pushrod Diameter:</b>	3/8" (larger diameter will require clearancing)	
<b>Weight:</b>	31 lbs	

## Features

- Optimal port design for greater flow, better atomization & enhanced dynamics
- Unique multi-angled intake & radiused exhaust valve seats for increased flow and horsepower output
- Hardened valve seat for exceptional durability even when used in extreme applications with harsh fuels
- More efficient water jacket design for improved cooling and thermal conductivity, and reduced risk of detonation
- Thick deck faces with added material to allow angle milling for increased compression
- Revised combustion chamber design for excellent combustion thermodynamics and enhanced fuel efficiency
- All accessory bolt holes drilled and tapped to exact tolerances

## Tech Notes

<b>Flat Milling:</b>	.006" per cc
<b>Angle Milling:</b>	.0075" per cc (excessive milling can cause intake manifold misalignment)
<b>Head Bolt Torque:</b>	Refer to cylinder head bolt manufacturer's specifications
<b>Rocker Stud Torque:</b>	45 lb/ft
<b>Intake Manifold Torque:</b>	35 lb/ft
<b>Spring Pocket Machining:</b>	Can be machined to 1.750" maximum diameter, cannot be machined deeper
<b>Pushrod Length:</b>	Measuring with length checker (COMP Cams® #7705) required to verify pushrod geometry
<b>Piston to Valve Clearance:</b>	Must be verified -minimum clearance is .080" intake and .100" exhaust
<b>Retainer to Guide Clearance:</b>	Must always be measured when using high lift cams
<b>Chamber to Dome Clearance:</b>	Must always be checked with domed pistons, clearancing may be necessary
<b>Chamber Volume:</b>	Varies due to valve margins and dishes, should always be verified before installation
<b>Valve Guide Clearance:</b>	Must be checked due to the variance in valve stem diameters between manufacturers Recommended clearance: intake .0015"-.0016", exhaust .002"-.0025" Water jackets require flushing prior to cylinder head installation
<b>Cylinder Head Bolts:</b>	Raised exhaust ports require longer <u>exhaust side</u> head bolts/studs
<b>Header/Spark Plug Clearance:</b>	Spark plug/ wire boot clearance verification is required prior to header installation. Minor modifications may be necessary in order to achieve proper clearance.

**RHS®**

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**Part #11038IS**

**Revised 08/31/11**



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### Suggested Assembly Components

Part Type	Brand/Part #	Description
Intake Valves	COMP Cams® #6021-8	2.300", + .250" long, 11/32" valve stem diameter
Exhaust Valves	COMP Cams® #6023-8	1.880", + .100" long, 11/32" valve stem diameter
Valve Springs*	COMP Cams® #924-16 (-02)	1.509" O.D. dual valve springs, 112# @ 1.900", max lift .600"
	COMP Cams® #991-16 (-03)	1.625" O.D. dual valve springs, 214# @ 1.950", max lift .750"
Retainers*	COMP Cams® #741-16 (-02)	1.500" 10° Super Lock™ steel retainer set
	COMP Cams® #733-16 (-03)	1.625" Super Lock™ titanium retainer set
Valve Locks*	COMP Cams® #611-16 (-02)	11/32" 10° Super Lock™ valve lock set
	COMP Cams® #611-16 (-03)	11/32" 10° Super Lock™ valve lock set
Valve Stem Seals	COMP Cams® #529-16	.530" metal body viton valve stem seals
Spring Locators*	COMP Cams® #4771-16 (-02)	1.550" valve spring locators
	COMP Cams® #4774-16 (-03)	1.625" valve spring locators
Guide Plates	COMP Cams® # 4806-8	3/8" guide plate set
Rocker Arm Studs	COMP Cams® # 4512-16	7/16" Hi-Tech™ rocker arm stud set

### Additional Recommended Components

Part Type	Brand/Part #	Description
Spark Plugs	ZEX™ #82003-8	Street/strip: 14mm, .750" reach, 5/8" hex, premium spark plug set
	ZEX™ #82216-8	Race: Champion #C57YC, 14mm, .750" reach, 5/8" hex, premium spark plug
Rocker Arms	COMP Cams® #1320-16	Pro Magnum™ 1.7 ratio rocker arm set, 7/16" stud diameter
	COMP Cams® #1120-16	Hi-Tech™ 1.7 ratio rocker arm set, 7/16" stud diameter
Intake Gaskets	RHS® #1710	Intake manifold gasket set, 1.82" X 2.54" port, .060" thick
Exhaust Gaskets	RHS® #1711	Header gasket set, 1.880" X 1.880" port size, graphite
Head Gaskets	RHS® #1702	Cylinder head gasket, 4.375" bore X .040" compressed thickness
	RHS® #1703	Cylinder head gasket, 4.630" bore X .040" compressed thickness
Valve Covers	COMP Cams® #230	Sand cast aluminum valve covers w/mounting studs and gaskets
Valve Cover Gaskets	RHS® #1712	Valve cover gasket set, silicone impregnated
Head Bolts**	ARP #135-3703	HP head bolt set, includes correct bolts for raised exhaust ports
Head Studs**	ARP #235-4303	8740 head stud set, includes correct studs for raised exhaust ports

### Application Notes

\*\* Recommended components only, individual application must be verified prior to installation

\* .250" Long intake valve length, .100" long exhaust valve length required for 2.000" installed height

\* .350" Long intake valve length, .200" long exhaust valve length required for 2.100" installed height



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