

**SMOKEY  
EXPLAINS:**

## HOW TO READ RACING PLUGS

**COLOR  
CUTAWAYS**



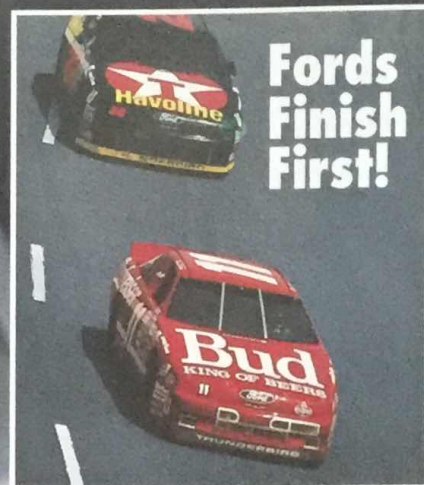
JULY 1992  
\$3.50

# CIRCLE TRACK

**& RACING TECHNOLOGY**

## INDUCTION SCIENCE

- Carb Evolution
- Manifold Tech
- 10 Holley Tips

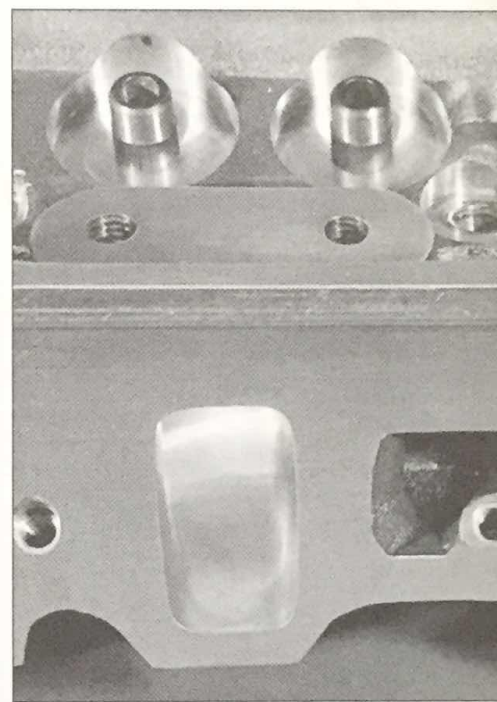
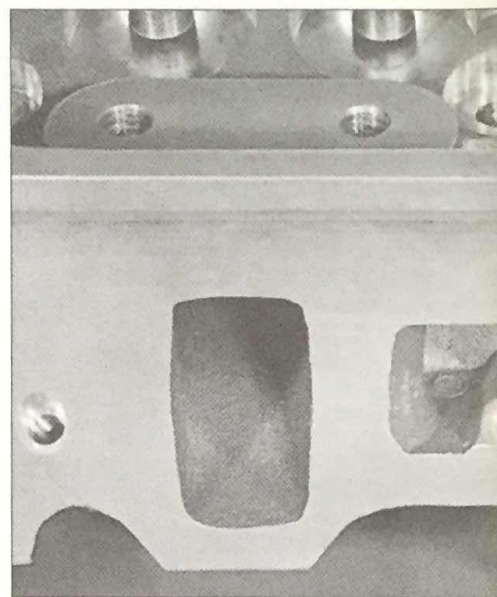


**Fords  
Finish  
First!**

## MIDGETS:

- Explosive Growth!





*The Extrude Hone material (media) is forced through the part at a pressure that depends on the strength of the part. Typical auto parts see 500 to 700 psi, but parts as delicate as aluminum foil can be run through the process.*

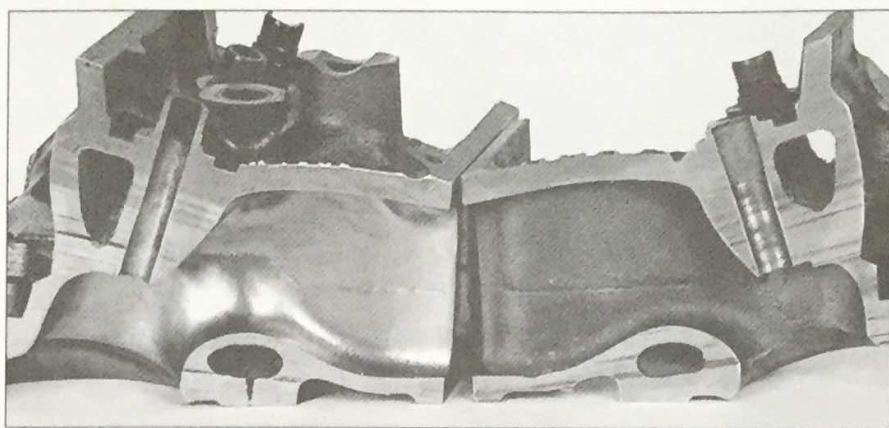
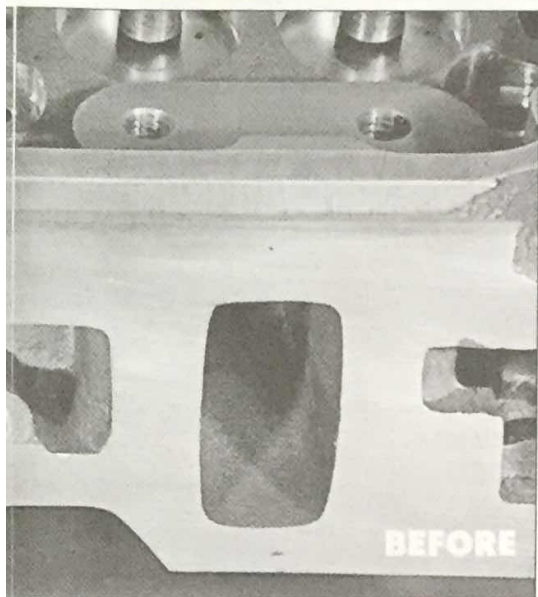
**R**ecently, a friend of mine told me that job security was having a job so bad no one else wanted it. I'll buy that and if I wanted that route to job security, I would go into the cylinder head and manifold porting business. I have a great deal of respect for Butch Elkins, Joe Lozano, and Mike Chapman, all of whom have spent their working lives reworking and reshaping intake and exhaust ports on everything from Siatas to Chevys. My share of porting experience lasted a little longer

# EXTRUDE HONE

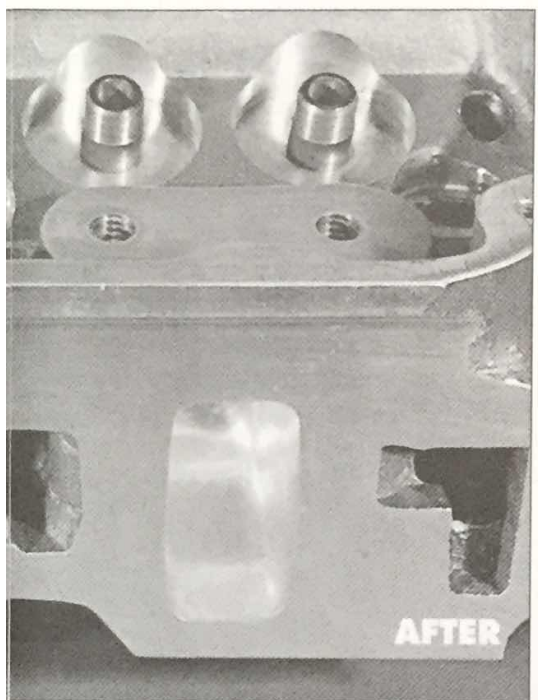
This process gives new meaning to "port 'n' polish."

By **JOHN THAWLEY**





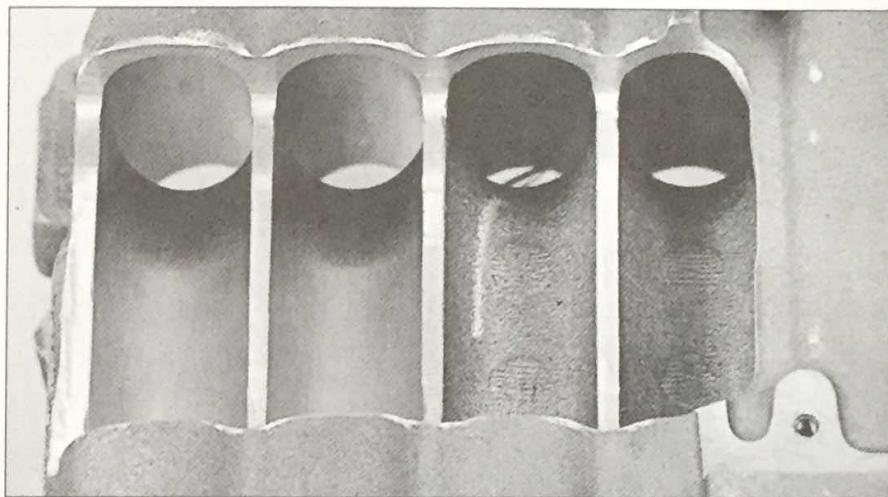
*Here's a before-and-after look at a set of cast-iron Chevy heads. The after piece (left) is clearly more smooth than the before piece (right).*



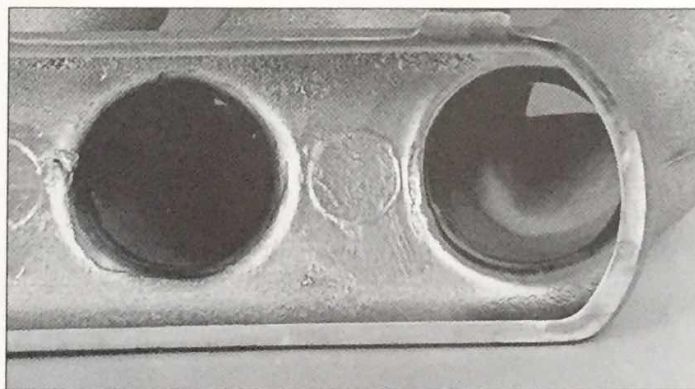
*This Ford aluminum TFS head went through the Extrude Hone procedure (note before and after photos) and that will cost the owner about \$750. Cast-iron heads cost a little more.*

than I wanted it to. Then along comes Extrude Hone. This is another one of those why-didn't-I-think-of-that ideas. Essentially, Extrude Hone is an abrasive (silicone carbide) added to a putty, as in Silly Putty. Force the mixture through an intake port (or whatever) and witness a rough casting become a piece of polished metal art.

We're talking hours here, not days and weeks. Yeah, but there's gotta be a catch, right—let's say I want to take 0.030 inch off the top of the port and 0.010 inch off the floor, can



*Here's a good example of the Extrude Hone process working in an area that's extremely hard for a hand porting specialist to reach. The runners on this Quad Four Oldsmobile intake (the two on the right are before and the two on the left are after) were cut away to show the uniform results obtained even deep inside the long curvatures.*



*This Ford 302 upper plenum has one orifice worked (right) and one stock (left). The turn-around time for typical automotive parts is about 10 working days.*

Extrude Hone do that? Yup. Give the company dimensions or a template. One area Extrude Hone feels it is more than competitive compared to hand porting jobs is in equalizing the volume of ports, be they intake, exhaust, or what have you. Since the Extrude Hone material (media) is exerted from a single source and runs through all of the ports at the same time, the port with the most restriction will get the most

material removed. The equipment the company uses runs in the six-figure range and it has several different sizes ranging from a 3/8-inch media cylinder to a 10-inch media cylinder. It's pretty space-age stuff compared to the typical dark room and a mechanical hand grinder. But, after all, the aerospace and medical field must have been halfway decent training grounds for the past 25 years.

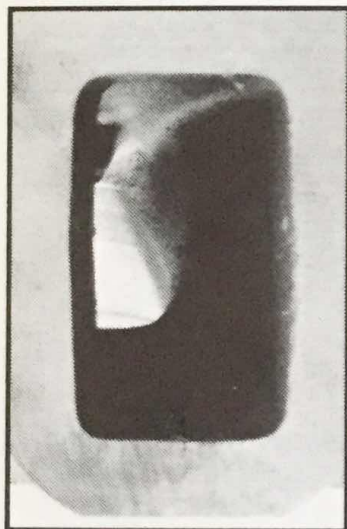


# EXTRUDEHONE

## POWERFLOW



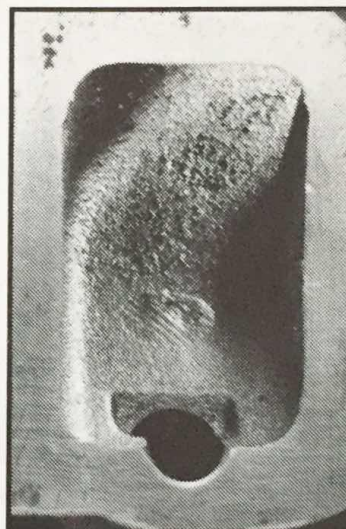
- Totally automated abrasive machining that provides unmatched fluid and air flow improvement.
- Substantially increases horsepower while greatly reducing fuel consumption.
- Available for foreign and domestic intake /exhaust manifolds and cylinder head combinations.
- Excellent technical assistance.



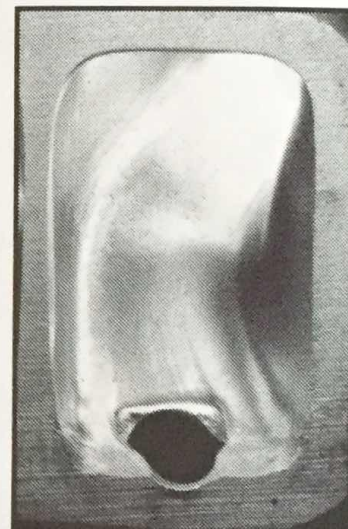
**BEFORE**



**AFTER**



**BEFORE**



**AFTER**

*Innovation In The Pursuit Of Excellence*

# EXTRUDEHONE

## POWERFLOW

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**Dealer:**