

# SCHUMANN'S SALES AND SERVICE FOR WET-SUMP OILING

-Greg McConiga

There's a guy I've met who's probably forgotten more about wet sump oil pump design than most experts will ever know. I got to meet the man in person this year at PRI when I made it a point to attend his Friday seminar and put a face to the voice on the other end of the phone.

I've used Schumann's a number of times for the modified street engines that I've built in the little restoration shop where I work and I've had the chance to speak to him long-distance often. Verne has always been generous with his time and gracious in helping me understand what I don't know — which is a lot, as my wife or any number of my friends will cheerfully attest. Verne and his company are the best resource out there if you're racing in a class that requires running a wet sump lubrication system.

He's created and patented several very clever work-arounds that make a wet sump oil pump work better than what the original engineers ever envisioned, particularly as it applies to the punishing world of racing.

Some of the innovations that Schumann's has brought to market range from improved internal oil distribution and pressure balancing — designed to minimize pressure thrust and vibration across the

gears or rotors — to entirely new designs that eliminate the internal pressure relief/bypass system that's so prone to creating excessive oil heating and the violent pump drive/distributor/cam/timing chain loading that occurs when the throttle is slammed shut at the end of the straightaway.

The Schumann 140 System uses either a single- or dual ball-type relief valve to control pressure and volume by being sized to relieve 140% of the pump's capacity externally, directly into the pan, instead of recirculating the oil internally across the suction and discharge sections of the pump. Schumann's properly-sized external relief system eliminates the spool valve type internal relief and fixes two problems that these original designs created: one, adding heat to the oil, and two, pressure locking in extreme conditions, which can lead to suction-side reversion and aeration as the oil backflows out of the pump suction pipe and gulps air. Coming to the market is a two-stage 140 System that controls pressure at idle on a separate relief from the second stage that controls pressure at high rpm. This dual design allows control of both the low-speed and high-speed pressure settings without worry of reduced oil pressure at idle or near idle engine speeds.



## SCHUMANN MODS FOR BALANCED FLOW AND PUMP LOAD

Here's an example of some of the internal pump work typical of what Verne Schumann does. The holes drilled through the ring apex and channels on the rotor and ring face provide a way for pressure to equalize across the pump, while the lubrication grooves in the housing and alongside the rotor drive shaft float the ring and rotor away from the housing. I've used his pumps in a number of street and racing applications with excellent results. He also offers a selection of copper gaskets to mount the more common pumps because his research indicates that leaks at that interface are more frequent and severe than what is commonly believed.

A third Schumann innovation is the Schumann's Energy Recovery system, which made its debut a couple of years ago at the Engine Masters competition. By routing the relief volume out of the pump and turning it so that it blows back into the side of the pump pickup piping in the direction of flow, this wickedly simple and immensely clever addition reduces oil pump power consumption and functions like an eductor pump, boosting oil flow up out of the pan and into the oil pump. Dyno testing has shown that as much as 14 horsepower is recovered with a correctly installed Energy Recovery system!

While racing and inventive problem solving consumes much of the typical day at Schumann's, they also offer a wide range of street or street and strip wet sump engine oil pump solutions for everything from world record-holding Stock and Super Stock racers to weekend warriors and local track racers. If you're running a wet sump and you want the best solution available, give them a call, and tell them Performance Technician Online sent you. ■

***Schumann's Dynamic Performance***

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