

between the rotors to compress it.

The beauty of the Lysholm screw-type compressor is that it combines the advantages of the Roots blower with the advantages of the vane compressor, without incurring the disadvantages of either. That is, it's a positive-displacement pump; it has no contacting parts or friction drag other than the rotor gears; it therefore needs no internal lubrication; and it's perfectly balanced like a Roots blower. Still, it affords internal compression like a vane supercharger, which greatly increases the Lysholm's **adiabatic** and volumetric efficiency over the Roots, especially at boost levels above 15-20 psi. In fact, Lysholm screw superchargers tend to see **adiabatic** efficiencies in the 60 to 65 percent range compared to about 50 percent for a good Roots blower. It's definitely a good design, it doesn't wear out, and it's efficient in all respects under boost (in a vehicle) or in constant-pressure industrial applications. The only drawback to a screw compressor in a vehicle – and it's relatively minor – is that the act of compressing air in the