evacuation time combined with higher piston speed. The reality of a mass-produced header, however, is that you must accept what will fit. If in doubt, choose a smaller-diameter primary tube.

Many bench-race sessions are devoted to the merits of collector length and its cross-section. In theory, increasing the length of the collector will broaden the scavenging wave. A smaller-diameter collector places emphasis on the expansion wave at the open end of the pipe where it reaches atmosphere (open) or the exhaust system (closed). This means that a short-length, large-diameter collector will produce more low-to-mid-range power, while a long collector will increase high engine-speed scavenging.

When the camshaft profile is altered appreciably, the tuning effect of the exhaust system becomes more important. Mild cam grinds with minimal overlap produce lower cylinder pressures at the end of the exhaust stroke. Camshafts with large amounts of overlap are much more sensitive to the tuning effect and may require some trial and error to achieve the best performance. Some engineers consider the tri-Y-style header to be the best approach; this configuration joins the appropriate cylinders prior to the collector, and then joins companion firings at the collector to further enhance efficiency. They work best on a low-rpm, torque-biased engine. Downstream of the collector, the exhaust system pipe should be fifty percent larger than the diameter of the primary tube. For instance, most street-driven big-blocks do well with

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