Comparison of the thermostat flow AREAs for a 333 versus a 330 with restrictor plate.

The area for recirculation and radiator flow were estimated and unitized for the 1.25" ID of the coolant tubes. The area estimations of the 333 were the "curtains" created by the circumference and the variable stroke opening. The estimation for the 330 was combinations of the limiting area of a circle, the curtain for an annulus and the curtain as the stroke opened.

The 333



The 333 shows about 25% area for recirculation that begins to close as flow to the radiator opens. At about 0.15 stroke the recirculation is closed. About 0.25 opening the radiator area is equal to the coolant tube area







The recirculation flow is initially limited just by the area of the restrictor. At about 0.8 opening stroke the 0.54 diameter end establishes a curtain, beginning the annulus reduction until 0.18 struck when the recirculation area is the annulus. At 0.30 stroke, the cup forms a curtain for the restrictor diameter until the cup is in contact with the restrictor to stop recirculation flow.

