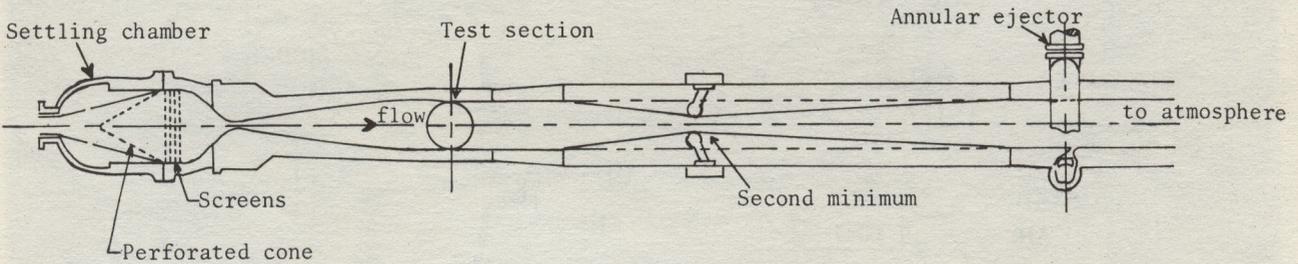


## Langley 20-Inch Hypersonic Tunnel (Mach 6)



The Langley 20-inch hypersonic tunnel (Mach 6) is located in Building 1247D and is under the direction of the Aero-Physics Division. This tunnel is used for heat transfer, pressure, and force testing. The test medium is air and is heated with a Dowtherm heat exchanger. Model mounting consists of a sting support and model injection mechanism. Mach 6 nozzle blocks are two dimensional and contoured. The test section is 20 by 20 inches, and the test core is approximately 16 by 16 inches. It exhausts through a movable second minimum into atmosphere with the aid of an annular ejector. Examples of operating conditions are as follows:

Stagnation pressure, psia . . . . .	200 to 550
Stagnation temperature, °R . . . . .	1000
Mach number . . . . .	6
Reynolds number per foot . . . . .	$3 \times 10^6$ to $10.5 \times 10^6$
Running time, min . . . . .	Over 15