

Table H.2. Influence Coefficients for Generalized One-Dimensional Flow

	$\frac{dA}{A}$	$\frac{dT_t}{T_t}$	$4f \frac{dx}{D} + \frac{dF_x}{1/2\gamma p A M^2}$
$\frac{dM^2}{M^2}$	$-\frac{2\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$	$\frac{(1+\gamma M^2)\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$	$\frac{\gamma M^2\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$
$\frac{dV}{V}$	$-\frac{1}{1-M^2}$	$\frac{1 + \frac{\gamma-1}{2}M^2}{1-M^2}$	$\frac{\gamma M^2}{2(1-M^2)}$
$\frac{da}{a}$	$\frac{\frac{\gamma-1}{2}M^2}{1-M^2}$	$\frac{\frac{(1-\gamma M^2)}{2}\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$	$-\frac{\gamma(\gamma-1)M^4}{4(1-M^2)}$
$\frac{dT}{T}$	$\frac{(\gamma-1)M^2}{1-M^2}$	$\frac{(1-\gamma M^2)\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$	$-\frac{\gamma(\gamma-1)M^4}{2(1-M^2)}$
$\frac{dp}{\rho}$	$\frac{M^2}{1-M^2}$	$-\frac{1 + \frac{\gamma-1}{2}M^2}{1-M^2}$	$\frac{\gamma M^2}{2(1-M^2)}$
$\frac{dp}{p}$	$\frac{\gamma M^2}{1-M^2}$	$-\frac{\gamma M^2\left(1 + \frac{\gamma-1}{2}M^2\right)}{1-M^2}$	$-\frac{\gamma M^2(1 + (\gamma-1)M^2)}{2(1-M^2)}$
$\frac{dp_t}{p_t}$	0	$-\frac{\gamma M^2}{2}$	$-\frac{\gamma M^2}{2}$
$\frac{ds}{c_p}$	0	$1 + \frac{\gamma-1}{2}M^2$	$\frac{\gamma-1}{2}M^2$