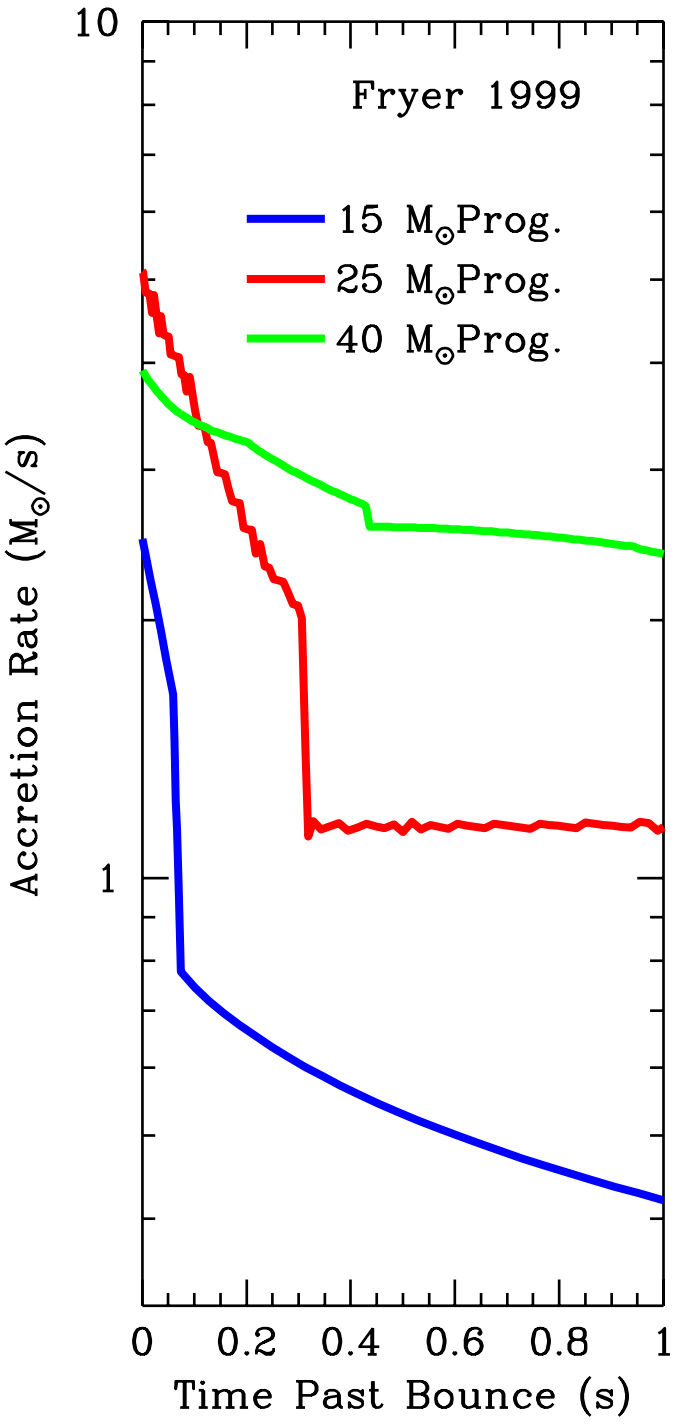

$$P_{Shock} \approx \frac{1}{2}\rho v_{ff}^2$$

$$\approx \frac{(2GM_{encl})^{1/2}}{8\pi R_S^{2.5}}\dot{M}_S$$

Massive Stars Have Higher Infall Rates →Requires More Energy To Explode

Burrows & Goshy 1993