



### Maximum Allowable Internal Gas Rod Load

Ariel gas rod load ratings are based upon calculated internal gas rod loads. The maximum allowable gas rod load of a given frame shall not be exceeded at any operating point. Refer to [Ariel Calculation Method](#) for internal gas rod load equations.

Gas rod load is best monitored for alarm and shutdown with the use of a differential pressure switch across each cylinder at the flange (cylinder discharge pressure minus cylinder suction pressure). The performance software and the rod load charts from the DataBook are available to assist in determining the differential pressure settings.

If the operating conditions are to include the relief valve set pressure, the compressor gas rod load must be maintained within the gas rod load limit, either by not exceeding the gas rod load limit at relief valve set pressure or by applying a shutdown switch on differential pressure across the cylinder. The relief valve is meant to protect the pressure equipment from exceeding system pressure ratings. Relief valve set pressures are discussed in the [Packager Standards Section 4](#).

The Ariel DataBook lists gas rod load ratings for both current and inactive frames. Always check the frame nameplate or contact the Ariel Response Center for the maximum allowable internal gas rod load when calculating compressor performance for existing equipment.