

## 1.0 SCOPE

- 1.1 This specification describes the requirements for 5150 Live Load Assemblies.
- 1.2 5150 is applicable for use in most bolted equipment, but is limited by radial and axial clearances.
- 1.3 Features and benefits of using 5150 are as follows:
  - 1.3.1 5150 eliminates the need for excessive gland force as well as constant gland adjustment.
  - 1.3.2 5150 compensates for packing consolidation, thermal growth, pressure and temperature variations and packing set wear.
  - 1.3.3 5150 decreases maintenance time.
  - 1.3.4 5150 stores approximately ten times the elastic energy of a standard gland bolt arrangement.
  - 1.3.5 For flange applications refer to the 5500 or 5505H specification.

## 2.0 CONTENT AND CONSTRUCTION

- 2.1 5150, Live Load Assemblies shall include belleville disc springs, an inner spring guide(s), and an end washer(s).
  - 2.1.1 Belleville disc springs shall be of 17/7 stainless steel in series and/or parallel arrangement.
  - 2.1.2 Inner spring guides (when applicable) shall be stainless steel.
  - 2.1.3 End washer(s) (when applicable) shall be stainless steel.
- 2.2 Construction
  - 2.2.1 5150 shall be manufactured by inserting an inner spring guide(s) into a stacked disc spring column with an end washer(s) placed on the bottom and if supplied on the top.
  - 2.2.2 Some arrangements may have only one end washer and /or no spring guide.

## 3.0 THERMAL, AND CHEMICAL CHARACTERISTICS

- 3.1 Thermal Characteristics
  - 3.1.1 Maximum Service Temperature – 1000°F (537°C)
- 3.2 Chemical Characteristics
  - 3.2.1 Chemical Incompatibilities – highly ionized reducing acid; hydrochloric acid at elevated temperatures.

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