Wear pads on rotary valves of continuous pressure cooker

The rotary valve introduces or discharges cans, or bulk food product, into or from the continuous pressure cooker with-out loss of steam or drop of cooking temperature. Steam is contained in the cooker at pressures up to 120 psig and temperatures in the area of 104.4C°(220°F).

The valve itself is a series of vanes which rotate in a chrome plated housing. These vanes form pockets within the valve which hold the can and transfer it to or from the cooking reel. Maintenance of pressure in the system is entirely dependent on the vane end forming a seal with the I. D. of the housing.

The end of each vane is fitted with a wear or sealing pad which rubs the inside surface of the housing as the vane rotates within it.

The wear pads are made from AMPCO® 21, extruded rectangle material. The advantage of the alloy is the long life due to wear and corrosion resistance. This has made AMPCO® 21 the standard wear pad material on a variety of cookers using the rotary valve delivery system.

In many of the bulk systems where the product comes in direct contact with the valve, acids and other corrosive materials are encountered.

The non-galling characteristics of AMPCO® 21 preserve the chrome plated I.D. surfaces for long periods of time and have cut down on stripping and replating of the housing.

Due to the excellent surface condition and close tolerance control in the manufacture of AMPCO® 21 extruded rectangles, the material is cut to length and used as supplied. This has enabled the customer to eliminate machining the operating surface of the pad, resulting in significant savings.