

## 1980

Electronic Products Magazine chose the multiple metallized capacitor, the Ultramet®, as one of the eighteen most significant electronic products of the year. (Note: Texas Instruments's speech synthesizer received this award). The first commercial application of the Ultramet® Capacitor — The UAUC: this device incorporates five separate values in one single continuous winding and is sold to the appliance service industry as a replacement part for almost any value that is encountered when repairing equipment in the field. By using jumper wires and combining different values (in parallel and series), 120 different combinations of single and dual values can be duplicated.

An agreement is signed with Evomec Oy of Finland, to manufacture high-speed machinery for the production of the multiple metallized capacitor — The Ultramet®. Later, agreements are reached with Kaido Manufacturing Company, Ltd. Of Japan. As an adjunct to the multiple value metallized capacitor patented in 1975, a technique is developed to permit not only multiple values but also multiple voltage ratings from one single, continuous winding (U.S. Patent No. 4,028,595). This has a specific application in telephone handsets and related hardware.

The Pulsecap® capacitor: A new technique in winding allows the company to achieve the highest volts per mil capability of any film dielectric capacitor in the world (10,000 volts/mil) smaller and less expensive for use in heavy, pulsing applications (600V to 800V) can now be manufactured and sold.

A Technology Transfer Department was created to promote and license products which were rapidly being developed. The AC Motor-Run capacitor industry had to shift away from PCB oil impregnated paper dielectric duplicated with the metallized version. When word spread that the technology did exist to create the modern version of the dual capacitor, American Radionic Company was approached by companies throughout the world to share this invention. The capacitor was to become known by its registered trademark, The Ultramet®.

Development of the world's first multiple metallized film dielectric capacitor produced from a single continuous winding. The technique was so advanced that the film capacitor winding equipment did not exist to produce it.

One of the first products which emerged from this effort was the Fail-Safe Capacitor, which received United States Patent No. 3,792,323. This capacitor was used in special circuitry in television sets to disrupt the high voltage to the picture tube so that there would be no excess (dangerous) radiation emitted. To help us meet the total demand, American Radionic Company licensed the Sprague Electric Company to also manufacture this product. Total volume estimated at almost \$100 million in sales. This patent was later re-issued in 1977 (Re. 39,126).

American Radionic Company embarks on a product development program structured to bring new and significant products to market annually. A research group evolves and an association develops with Connecticut based patent attorneys (Parmalee, Johnson, Bollinger & Bramblett).