

**FROM MASS PRODUCTION TO MASS CUSTOMIZATION**

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**ABSTRACT**

*With the advent of the industrial revolution and interchangeable parts, manufacturing moved from the craft era to the mass production era. Today there is a new era emerging and it is called Mass Customization. Mass Customization takes the best of the craft era, when customers had products built to their specifications but only the elite could afford them, with the best of the mass production era, when everybody could get the same product because it was affordable. This presentation will highlight the development of Mass Customization and how the sewn products industry is positioned to capitalize on it. As progressive companies trade their traditional production concepts and practices for powerful mass customization techniques, this presentation will provide insight into the integration of information technology, mechanization, and team-based flexible manufacturing. Emerging technologies for mass customization such as three-dimensional non-contact body measurement and digital printing will also be discussed.*

**KEYWORDS:** Mass Customization, Body Scanning, Digital Printing

**Introduction:**

Sometimes we get signals that it is time to change long before we respond to those signals. In fact, we have been getting signals in the United States that it is time to do something different, and we have been betting those signals for a long time. For example, a study of U.S. apparel employment over the last twenty years would indicate that there has been a steady decline from a peak of about 1.4 million workers to less than 800,000. (Figure 1) Likewise the textile and apparel trade deficit over the past ten years has grown tremendously. In fact, it has more than doubled in the past ten years (Figure 2).

Another very interesting signal that merits some attention is that of the growth in worldwide population. If world population were separated into developed countries versus developing or undeveloped countries, it would show that there is a significantly greater growth rate in developing countries. In fact, the projections for the next ten years indicate that world population is expected to grow from 6.3 billion to 7.3 billion people. Ninety percent of this growth is expected in developing countries (Figure 3).