### **SIMATRIX**

# **Dip Casting**



#### **Applications**

#### **All Medical Devices**

Applications encompass reconstructive surgery components, coatings and unique material requirements, including low-durometer and low-friction surfaces. Dip casting is also an excellent choice for prototyping, as multiple iterations are possible with minimal tooling investment.

#### **Function**

#### **Balloons, Coatings and Components for Medical Devices**

Vesta offers expert design assistance, precision tooling and experienced production staff to ensure optimal compliance with your manufacturing requirements.

#### **Description**

#### A Broad Range of Critical Uses

Dip casting is a unique process in which a mandrel, custom-fabricated for the desired shape, is dipped in silicone elastomer then cured on the mandrel. In this process, even the most complex components and undercuts can be produced flash-free and without parting lines. This custom process can also produce components with ultra-thin walls and large cavities.

#### **Technology**

## Manual to Robotically Controlled Operations for Unique Geometries and Material Properties

Vesta designs and operates state-of-the-art tooling built to accommodate some of the industry's most complex geometries. With a combination of industry-leading processes and decades of silicone experience, Vesta is able to assist you with the most appropriate manufacturing option for your medical device or component, and ensures compliance with your production capability requirements.

#### **Competency**

#### **Tight-Tolerance, Custom Dip Casting**

With more than 15 years of experience specializing in silicone dip casting and coating of medical devices, our precise knowledge and technology in this area are unmatched in the industry. Our expertise includes:

- Wall thickness as thin as 0.002" (0.05 mm)
- Wall tolerances as tight as +/-0.002" (0.05 mm) depending on part geometry
- Flash-free components without parting lines
- Textured, smooth or optically clear surface options
- Prototype molding for rapid product development services
- Laser marking

