Innovators in microfluidic solutions
Telos is an innovative microfluidic system for high-throughput droplet, particle and flow product generation. Thanks to its modular, scalable and highly flexible technology, the Telos system offers huge advantages over individual microfluidic chips that have relatively low-throughput.

Microfluidic devices are ideal for producing a wide range of droplets, particles and homogenous products, but individual chips have relatively low-throughput. Many applications require large amounts of material - quantities from a few grams to hundreds of kilograms or more are needed in as short a time as possible.

In response to this requirement, Dolomite has designed Telos, a microfluidic system capable of producing liters of droplets or particles per day with excellent control and performance.

The heart of the Telos system is a module which holds a Telos 2-Reagent Chip with 7 microfluidic channels, which can consistently generate monodisperse droplets in the 20μm-150μm diameter range with one or two droplet components. Operating over a wide temperature and pressure range, each module is individually controlled with integrated valves and filters and offers optical access to half of the chip with excellent visibility of the junctions.

A Support Frame enables up to 10 Clamp Modules to be stacked side by side, each supplying a chip from common fluid inputs, giving a total of 70 parallel channels that can be run at production rates of up to 30 litres per day. Each module has independent valving, allowing control of input streams, chip replacement and inspection without interrupting droplet production.

Features and benefits
- Operates over a wide temperature (4-50°C) and pressure (0-10bar) range
- Fast set-up time
- Tool-free module assembly and chip collection
- Optical access allows excellent visibility of the junctions
- Exceptional flow control during priming and operation.

Applications
Telos benefits a wide range of industries including pharmaceutical, food, agrochemical, cosmetics and research and can be used for the following applications:
- DNA, cell and bead encapsulation and screening
- High throughput emulsion and foam generation
- Microparticle and nanoparticle synthesis
- Novel product formulation
- Micro-reaction engineering.

Custom options
Telos can be customized in many ways, for example with features such as real time product QC, temperature and atmosphere control, production of core/shell particles, etc. A wide variety of channel geometries may be implemented, allowing the system to be customized for many different applications. Please contact us to discuss your exact requirements!