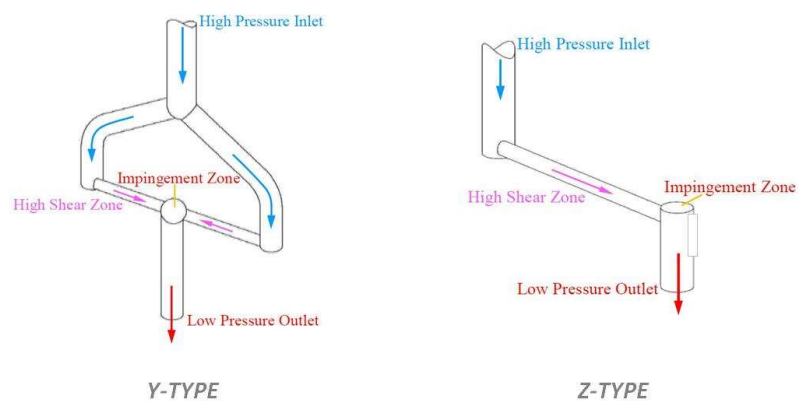


Genizer Diamond Interaction Chamber Technology

The Genizer diamond interaction chamber is the key component of Genizer high-pressure homogenizers. It makes use of microfluidic technology, and the inside has been provided with nano-size micro-channels. Here, the user's formulation is exposed to forces of strong impact and high shear, thereby leading to nano cell disruption and nano-article dispersion.



It has Y-Type and Z-type for different applications. The Y-type interaction chamber, is regarded as one of the most powerful homogenization chambers to date. In this system, the flow stream is split into two channels that are redirected over the same plane at right angles and propelled into a single flow stream. High pressure promotes a high speed at the crossover of the two flows, which results in high shear, turbulence, and cavitations over the single outbound flow stream.

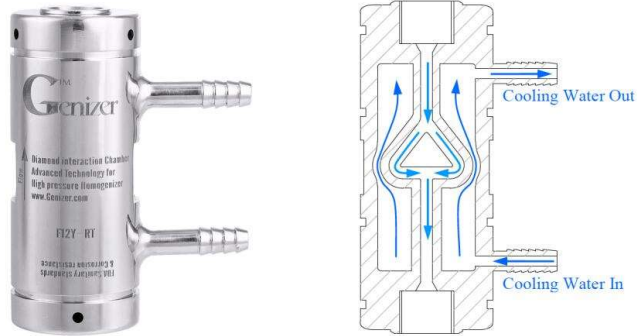


The Y-type interaction chamber is widely used in the preparation of pharmaceutical emulsions because it minimizes cavitation and produces exquisite, stable particle size and PDI (poly dispersity index) control ability. Genizer and Microfluidics Corp. are the main manufacturers of the diamond interaction chamber. At present, the Y-type diamond interaction chamber is mainly used in high-end nanotechnology, and it occupies more than 90% of the US pharmaceutical industry. Genizer's temperature-controlled interaction chamber avoids temperature surges and enables working pressure of up to 60,000 psi.

Generally speaking, the Y-type is more suitable for the treatment of liquid-liquid materials, and Z type is for the treatment of solid-liquid materials.

Cooling Options:

The traditional method cools the chamber by immersing entirely in the cooling bath, but the chamber's thick steel cover makes this an ineffective solution. Genizer's patent fabrication has the cooling option inside the chamber, which allows for much more effective heat exchange.



Popular Models:

Y-Type: F12Y, F20Y, N40Y, J30Y, F30Y, F20Y-12

Z-Type: G10Z, H10Z, H30Z, H230Z, L10Z