

Z-TYPE Diamond Interaction Chamber for HP Homogenizers

Nanoemulsion | Graphene | Cell Disruption | Nanodispersion | Deagglomeration | Liposome

Unique Benefits

- **Full Compatibility:** Full replacement for the chamber of Microfluidizer processors
- **Pharmaceutical Applications:** Electro polishing and inner Passivation
- **Longer warranty period:** Standard 1 year
- **Cooling System:** Real-time cooling option to reduce oversized particles in USP729, and retain protein activity
- High pressure connection with the homogenizers of other manufacturers, such as Avestin, PSI, ATS, PhD

Always Discount for Publish Researches



High pressure homogenizers are equipped with various types of valves, nozzles, or chambers. Among them, the interaction chamber is the most powerful one. There are basically two types of interaction chambers: Y-Type and Z-type. **The Y-Type Interaction Chamber performs excellent in sheer rate, while the Z-Type Interaction Chamber can also be a ideal option to process bacteria such as E.coli.** Both type of chambers are made from abrasion-resistant materials, with diamond being the most durable and expensive option. It has been full replacement of Microfluidizer processors. In the FIG. 1, the flow stream is pushed into the Z-type chamber under high pressure. Inside the Z-shape micro channel, the fluid experiences high sheer and impact to achieve particle size reduction.

Specifications

Description	Z-Type Diamond Interaction Chamber, Single-Slotted & Multi-Slotted
Brand	Genizer or OEM with High Quality
Materials	Diamond, 316SS stainless steel
Compatibility & Replacement for Microfluidizer Processors & Avestin EmulsiFlexs	Single-Slotted: M-110Y, M-110P, M-110PS, M-110L, M-110S, M-110EH, LM20, LV1 and Static Homogenizing Valve (Avestin) Multi-Slotted: M-7115, M-7125, M-7250, M-210, M610, PSI-40
Standard Warranty	1 year (up to 5 years available)
Dimensions (W × D × H)	35mm×35mm×85mm (Single-Slotted), ~ 1 lbs (0.5 kg) 45mm×45mm×165mm (Multi-Slotted), ~ 3 lbs (1.5 kg)
Cleaning	Flush to clean
Sterilizing	Whole unit autoclavable
Pressure Range	0-30,000 psi, 0-45,000 psi



Phone: +1(323) 825-1851
Fax :+1(323) 978-4693
Email: Nano@Genizer.com
http://www.genizer.com/z-type-diamond-interaction-chamber_p0023.html

Discount available for public research. Genizer.com reserves the right to change specifications without notice. © 2009 by Genizer. All rights reserved. English Version 091620.

Z-TYPE Diamond Interaction Chamber for HP Homogenizers

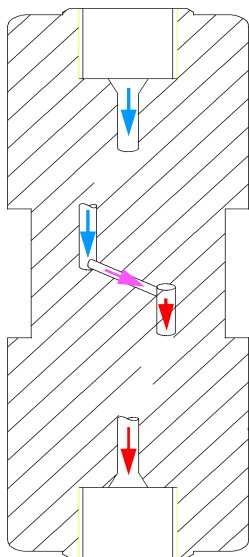
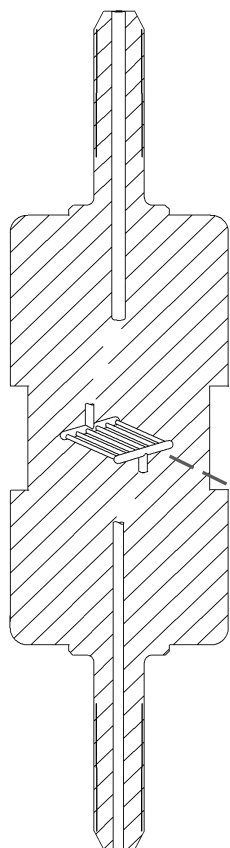


FIG. 1 Single-Slotted Z-TYPE Interaction Chamber



Z-6 DIXC:
6-Slotted
Z-type Diamond IXC

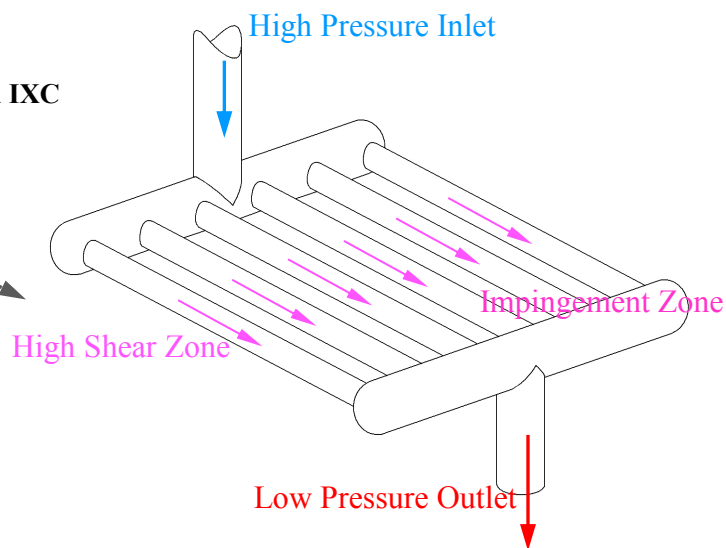


FIG. 2 Multi-Slotted Z-TYPE Interaction Chamber

Standard Features

Chamber Type	Z-type Diamond Interaction Chamber: G10Z, H10Z, H210Z, H30Z, H230Z, L10Z, L210Z, L30Z, Q50Z, T60Z, T250Z
Standard Pressure	30,000 psi
Material	Diamond, 316L stainless steel
Polishing Condition	Electro polishing and inner Passivation
Material Grade	Pharmaceuticals grade with FDA standards
Warranty	1 year against any manufacturing defects

Options

Auxiliary IXC	Diamond auxiliary processing modules (APM)
Max. Pressure	45,000 psi
Material Available	Titanium (Resistant to strong acid and base)
Services	Customized Laser mark, Customized dimensions and fittings
Temp. Control	Real Time cooling on Chamber

Diamond Interaction Chamber with COOLING SYSTEMS

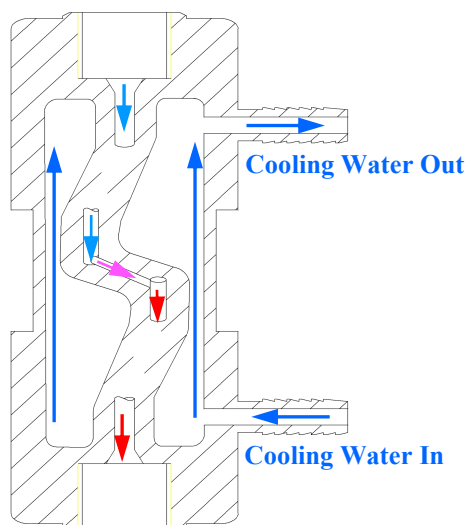


FIG. 3 Single-Slotted Z-Type Interaction Chamber with cooling system

Chamber with Real-Time Cooling Systems

The outside temperature of a working chamber can exceed 80°C and much higher from inside, which reduces the quality of the product. For example, in the pharmaceutical industry, an overheated chamber leads to the formation of oversized particles. Particles in the parenteral > 5 microns (µm) or PFAT5 > 0.05% are not favored by the FDA and United States Pharmacopeia (USP) 729. During cell disruption, protein activity will also be compromised. Further, the real-time cooling chamber is a better choice for preparation of Emulsified Fuel in the safer temperature. The traditional method cools the chamber by immersing it entirely in cooling liquid, but the chamber's thick steel cover makes this an ineffective solution. This patent fabrication has the cooling option inside the chamber (Fig. 3, Fig. 4), which allows for much more effective heat exchange.

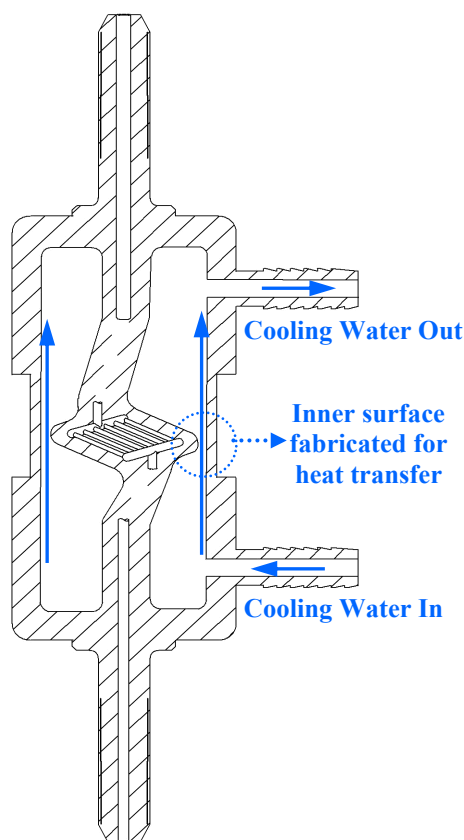


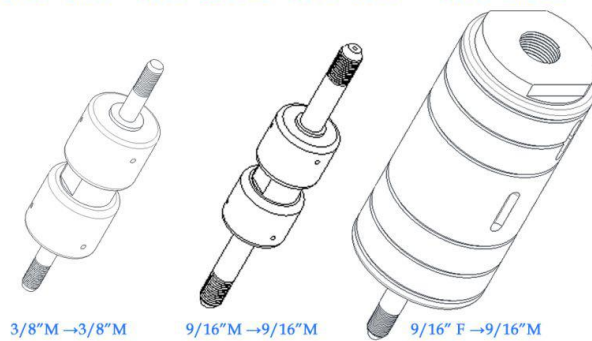
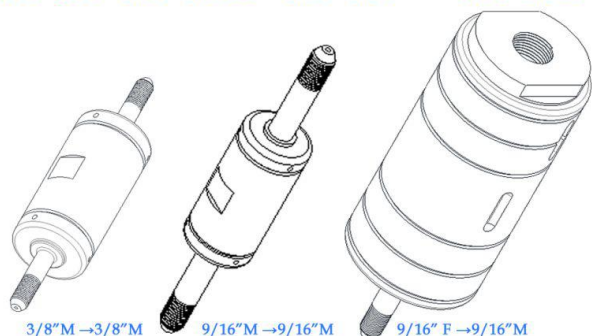
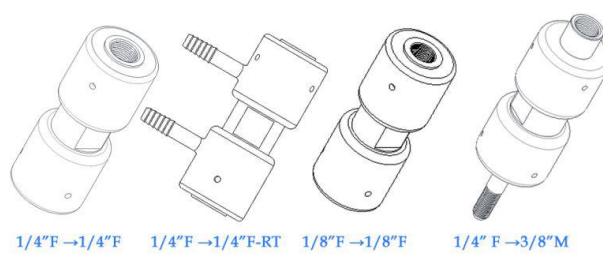
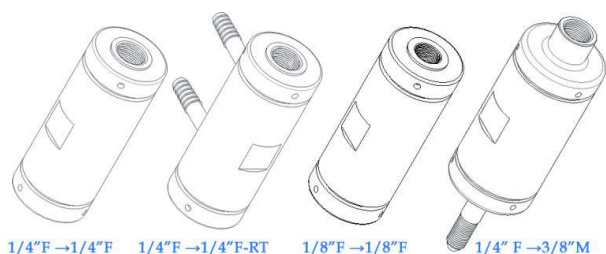
FIG. 4 Single-Slotted Z-Type Interaction Chamber with cooling system

Specifications for Z-Type Chamber with RT

Description	Z-Type DIXC-RT, Single-Slotted & Multi-Slotted
Brand	Genizer or OEM with High Quality
Material	Diamond, 316SS stainless steel
Compatibility & Replacement for Microfluidizer Processors & Avestin EmulsiFlexs	Single-Slotted: M-110Y, M-110P, M-110PS, M-110L, M-110S, M-110EH, LM20, LV1 and Static Homogenizing Valve (Avestin) Multi-Slotted: M-7115, M-7125, M-7250 and M-210
Warranty	1 year (up to 5 years available)
Dimensions (W×D×H)	35mm×35mm×85mm (Single-Slotted) 45mm×45mm×165mm (Multi-Slotted)
Cleaning	Flush to clean
Sterilizing	Whole unit autoclavable
Pressure Range	0-30,000 psi, 0-45,000 psi
Chamber Type Available (See the catalog)	Single-Slotted: G10Z-RT, H10Z-RT, and H30Z-RT, H210Z-RT, H230Z-RT Multi-Slotted: H10Z-4-RT, H10Z-5-RT, H10Z-6-RT, H10Z-7-RT, H30Z-4-RT, G10Z-6-RT, G10Z-7-RT



Catalog for Y/Z type Diamond Interaction Chamber



Catalog No.	Slot Number	Connection	Price (US\$)
F12Y	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
F20Y	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
G10Z	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H10Z	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H210Z	1-6 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H30Z	1-6 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H230Z	1-3 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
Q50Z	Single Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
F12Y-RT	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
F20Y-RT	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
G10Z-RT	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H10Z-RT	1-12 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H210Z-RT	1-6 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H30Z-RT	1-6 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
H230Z-RT	1-3 Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
Q50Z-RT	Single Slotted	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote
J20Y, J30Y, N40Y, T60Z		$\frac{1}{4}$, $\frac{3}{8}$, $\frac{9}{16}$ High pressure fitting	Quote