

Y-TYPE Diamond Interaction Chamber for High Pressure Homogenizer

Nanoemulsion | Cell Disruption | Nanodispersion | Deagglomeration | Liposome

Unique Benefits

- Full replacement for the chamber of Microfluidizer processors
- Electro polishing and inner Passivation for pharmaceutical application
- Lower cost and higher quality
- Longer warranty period
- Real-time cooling option to reduce oversized particles in USP729 Retaining protein activity
- High pressure connection with the homogenizers of other manufacturers, such as BEE International

Always a Discount for Public Research



Y-Type Diamond Interaction Chamber

High pressure homogenizers are equipped with various types of valves, nozzles, or chambers. Among them, the Y-Type Interaction Chamber is one of the most powerful. These chambers are made from abrasion-resistant materials, with diamond being the most durable and expensive option. Y-Type Interaction Chamber is firstly disclosed in PAT. NO. 4533254. It has been used by several manufacturers, such as Microfluidics (F20Y, F12Y Interaction Chamber), Avestin (Static Homogenizing Valve) and Nanomizer (Collision-Type Generator). In the Microfluidics system (FIG. 1), the flow stream is split in two channels that are redirected at right angles over the same plane 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 cavitation over the single outbound flow stream.

We have been providing high quality Y-type Diamond Interaction Chambers for high pressure homogenization in compliance with FDA standards. The Single-Slotted Chamber can be used as a full replacement for the chambers from M-110Y, M-110P, M-110L, M-110S, and M-110EH Microfluidizers and the Static Homogenizing Valve from Avestin. The Multi-Slotted Chamber can be used as a full replacement for the chambers used on production units, such as M-210, M-7115, M-7125, and M-7250. Our confidence in the quality of our products allows us to provide a 1-year warranty, compared to the 90-day warranties of other manufacturers.



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Y-TYPE Diamond Interaction Chamber for High Pressure Homogenizer

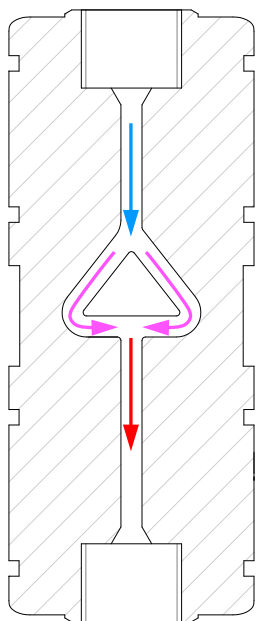


FIG. 1
Single-Slotted
Y-Type
Interaction Chamber

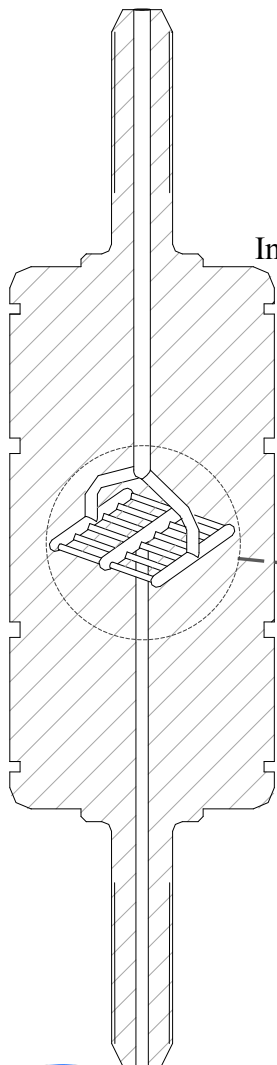
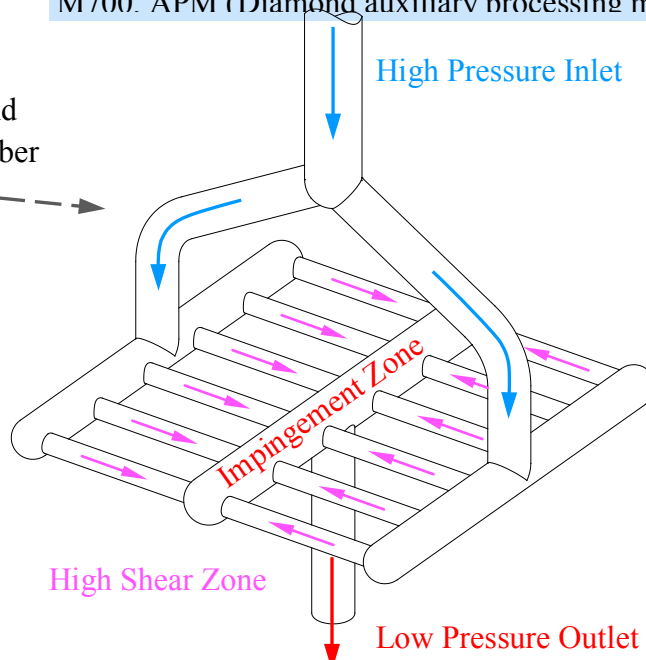


FIG. 2
Multi-Slotted
Y-Type
Interaction Chamber

Y-6 DIXC
6-slotted
Y-Type Diamond
Interaction Chamber



Specifications

Description	Y-Type Diamond Interaction Chamber Single-Slotted, Multi-Slotted
Brand	OEM with High Quality
Materials	Diamond, 316SS stainless steel
Compatibility and Full Replacement for Microfluidizer Processors & Avestin EmulsiFlex	Single-Slotted: M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH Static Homogenizing Valve (Avestin) Multi-Slotted: M-7115, M-7125, M-7250 and M-210
Standard Warranty	1 year (up to 5 years available)
Dimensions W x D x H	35mm x 35mm x 85mm (Single-Slotted) 45mm x 45mm x 165mm (Multi-Slotted) 90mm x 90mm x 235mm (M700)
Weight	1 lbs. (0.5kg) (Single-Slotted) 3 lbs. (1.5kg) (Multi-Slotted) 15 lbs. (7.0kg) (M700)
Cleaning	Flush to clean
Sterilizing	Whole unit autoclavable
Pressure Range	0-4,5000 psi
Chamber Type Available (See price list)	Single-Slotted: F12Y, F20Y, and Static Homogenizing Valve Multi-Slotted: F12Y-4, F12Y-5, F12Y-6, F12Y-7, F20Y-4, F20Y-6, F20Y-7 H10Z, G10Z, H30Z, E230Z, H230Z, N40Y, J30Y, J20Y for M210, F20Y-12, F20Y-13, F20Y-17 for M700. APM (Diamond auxiliary processing modules)

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Diamond Interaction Chamber with COOLING SYSTEMS

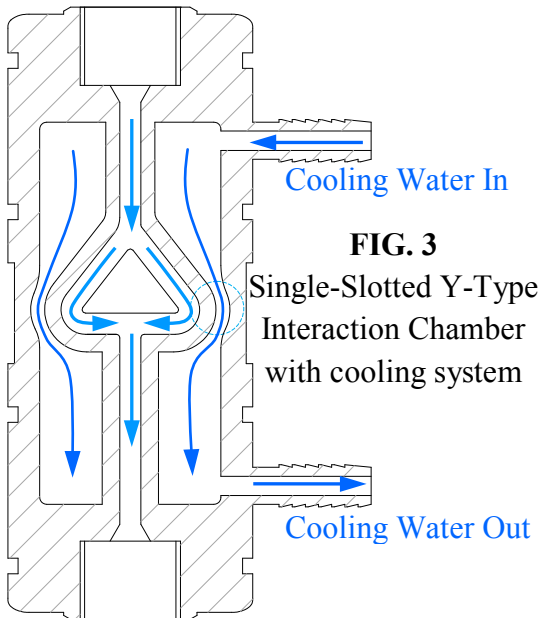


FIG. 3
Single-Slotted Y-Type
Interaction Chamber
with cooling system

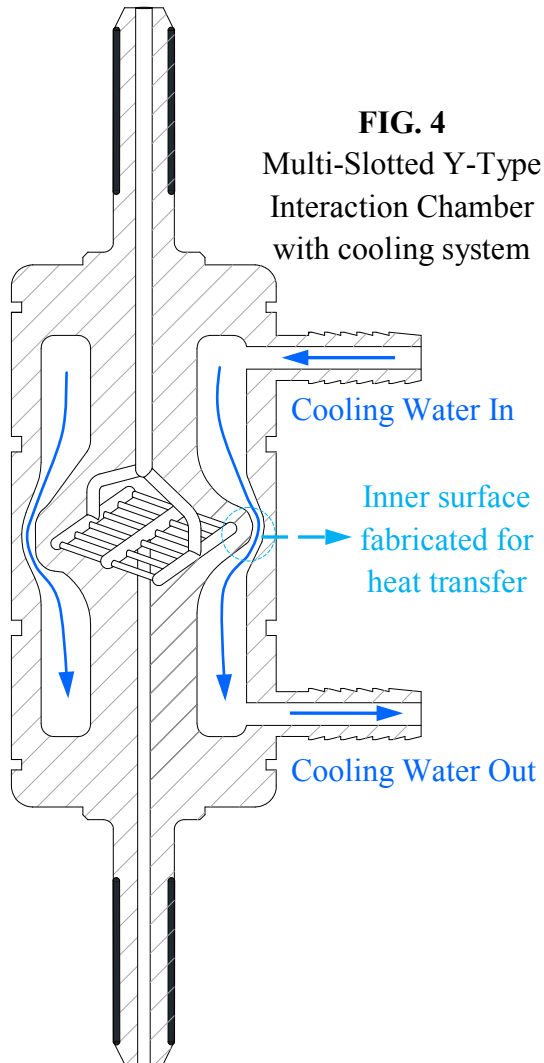


FIG. 4
Multi-Slotted Y-Type
Interaction Chamber
with cooling system

Chamber with Real-Time Cooling

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.

Specifications

Description	Y-Type Diamond Interaction Chamber Single-Slotted, Multi-Slotted
Brand	OEM with High Quality
Materials	Diamond, 316SS stainless steel
Compatibility and Full Replacement for Microfluidizer Processors & Avestin EmulsiFlexs	Single-Slotted: M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH Static Homogenizing Valve (Avestin) Multi-Slotted: M-7115, M-7125, M-7250 and M-210
Standard Warranty	1 year (up to 5 years available)
Dimensions W x D x H	35mm x 35mm x 85mm (Single-Slotted) 45mm x 45mm x 165mm (Multi-Slotted)
Weight	1 lbs. (0.5kg) (Single-Slotted) 3 lbs. (1.5kg) (Multi-Slotted)
Cleaning	Flush to clean
Sterilizing	Whole unit autoclavable
Pressure Range	0-4,5000 psi
Chamber Type Available (See price list)	Single-Slotted: F12Y-RT, F20Y-RT, and Static Homogenizing Valve-RT Multi-Slotted: F12Y-4-RT, F12Y-5-RT, F12Y-6-RT, F12Y-7-RT, F20Y-4-RT, F20Y-6-RT, F20Y-7-RT H10Z, G10Z, H30Z, E230Z, H230Z, N40Y, J30Y, J20Y for M210, F20Y-12, F20Y-13, F20-Y-17 for M700

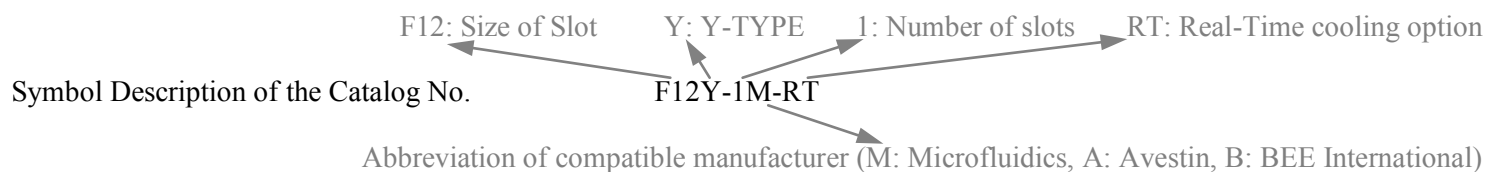


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Price List for Y-Type Diamond Interaction Chamber

Limited time promotion



Catalog No.	Manufacture Compatibility	Full Replacement for	Price (US\$)
F12Y-1M	Microfluidics	M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH	3,000.00
F20Y-1M	Microfluidics	M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH	3,000.00
F12Y-4M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-4M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F12Y-5M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-5M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F12Y-6M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-6M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F12Y-7M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-7M	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F12Y-1B	BEE International	Nano DeBEE 45, Micro DeBEE 45, Mini DeBEE 45	3,000.00
F20Y-1B	BEE International	Nano DeBEE 30, Mini DeBEE 30, Micro DeBEE 30	quote
F12Y-nB	BEE International	DeBEE 1000, DeBEE 2000, DeBEE3000, DeBEE2000P	quote
F20Y-nB	BEE International	DeBEE 1000, DeBEE 2000, DeBEE3000, DeBEE2000P	quote
F12Y-1A	Avestin	(Static Homogenizing Valve) Avestin	3,000.00
F20Y-1A	Avestin	(Static Homogenizing Valve) Avestin	3,000.00
F12Y-1M-RT	Microfluidics	M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH	3,600.00
F20Y-1M-RT	Microfluidics	M-110Y, M-110P, M-110PS, M-110L, M-110S and M-110EH	3,600.00
F12Y-4M-RT	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-4M-RT	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F12Y-6M-RT	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-6M-RT	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-7M-RT	Microfluidics	M-7115, M-7125, M-7250 and M-210	quote
F20Y-12	Microfluidics	M-700	quote
F20Y-17	Microfluidics	M-700	quote

Warranty: 1 year. Always a 25% discount for public research. (30% discount available for publications.) For further questions, please email us, including the manufacturer information and the type of homogenizer in your message.

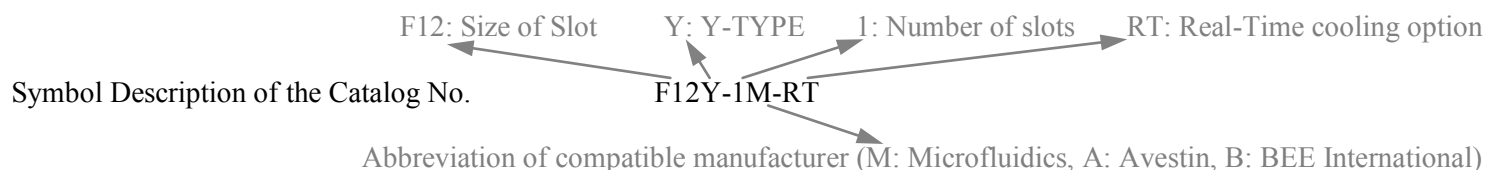


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Price List for Upgrading to Y-type Interaction Chamber

Limited time promotion



Original Chamber	Upgrade to Brand New	Warranty time	Price (US\$)
F12Y or F20Y Diamond Single-Slotted Chamber (Microfluidics)	F12Y-1M-RT or F20Y-1M-RT Single-Slotted Diamond Chamber	Match to Original Warranty	500.00
F12Y or F20Y Ceramic Single-Slotted Chamber (Microfluidics)	F12Y-1M-RT or F20Y-1M-RT Single-Slotted Diamond Chamber	Match to Original Warranty	quote
F12Y or F20Y Diamond Multi-Slotted Chamber (Microfluidics)	F12Y-RT or F20Y-RT Multi-Slotted Diamond Chamber	Match to Original Warranty	quote
F12Y or F20Y Ceramic Multi-Slotted Chamber (Microfluidics)	F12Y-RT or F20Y-RT Multi-Slotted Diamond Chamber	Match to Original Warranty	quote
Diamond Nozzle on Nano Mini or Micro DeBEE (BEE International)	F12Y-1B or F20Y-1B Y-Type Single-Slotted Diamond Chamber	Match to Original Warranty	quote
Zirconia Nozzle on Nano Mini or Micro DeBEE (BEE International)	F12Y-1B or F20Y-1B Y-Type Single-Slotted Diamond Chamber	Match to Original Warranty	quote
Diamond Nozzle on Production Unit (BEE International)	F12Y-1B or F20Y-1B Y-Type Multi-Slotted Diamond Chamber	Match to Original Warranty	quote
Zirconia Nozzle on Production Unit (BEE International)	F12Y-1B or F20Y-1B Y-Type Multi-Slotted Diamond Chamber	Match to Original Warranty	quote
Other Unit	Y-Type Interaction Diamond Chamber	Match to Original Warranty	quote

The Y-Type Interaction Chamber, regarded as one of the most powerful chambers to date, has been used by several manufacturers, including Microfluidics (Y-Type Interaction Chamber), Avestin (Static Homogenizing Valve) and Nanomizer (Collision-Type Generator). We provide upgrading service from your original interaction Chamber. We deliver the brand new Y-Type Interaction Diamond Chambers to exchange your old chambers. So far the Chamber from Microfluidics and Nozzle from BEE International is upgradable. Please send the information if you want to upgrade Chamber or Valve or Nozzle in your high pressure homogenizers from the other manufactures.

Warranty: Match to Original Warranty. Always a 25% discount for public research. (30% discount available for publications.) For further questions, please email us, including the manufacturer information and the type of homogenizer in your message.



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