

# NanoGenizer Series High Pressure Homogenizer

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

## Unique Benefits

- **Energy efficient:** 1/2 energy loss of the most homogenizers
- **Small:** Integrated design delivers the light weight and small dimensions
- **Smart:** Controlled inlet volume $\pm$ 0.1mL; Auto stop with time & volume
- **Silent:** Noiseless performance
- **Strong:** More than 100 mL/min at 30,000 psi
- **CE compliant and RoHS compliant**

## Discount for publication of public papers



NanoGenizer series electric ultrahigh pressure homogenizer is an equipment operated with the touch screen. It is suitable for laboratory preparation of fat emulsion, liposome, nanosuspension, microemulsion, lipid microsphere, nanoemulsions, dairy products, infusion solutions, cell disruption, juice homogeneity, graphene, dye and etc. The maximum working pressure is 45,000 Psi/3100 Bar. All parts touching with medium are FDA approved sanitary materials including 316L stainless steel, 17-4ph stainless steel, titanium alloy, tungsten carbide, PTFE, UHMWPE.

## Specifications

| Catalog No.     | NG-15K  | NG-20K         | NG-25K         | NG-30K         | NG-45K         |
|-----------------|---|----------------|----------------|----------------|----------------|
| Flow rate       | 120mL/min                                     | 120mL/min      | 100mL/min      | 100mL/min      | 60mL/min       |
| Min. Sample     | 1mL   | 1mL            | 1mL            | 1mL            | 1mL            |
| Max. Pressure   | 15,000psi                                     | 20,000psi      | 25,000psi      | 30,000psi      | 45,000psi      |
| Dimensions (cm) | 70×36×30                                      | 70×36×30       | 70×36×30       | 70×36×30       | 70×36×30       |
| Weight          | 35 kg (77 lbs)                                | 35 kg (77 lbs) | 35 kg (77 lbs) | 35 kg (77 lbs) | 35 kg (77 lbs) |
| Max. Temp.      | 80°C (176°F)                                  |                |                |                |                |
| Power           | 110V/220V                                     |                |                |                |                |
| Cleaning        | Flush to clean                                |                |                |                |                |
| Features        | Digital display of pressure or pressure gauge |                |                |                |                |



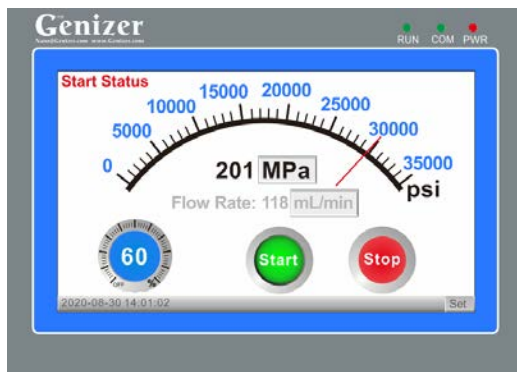
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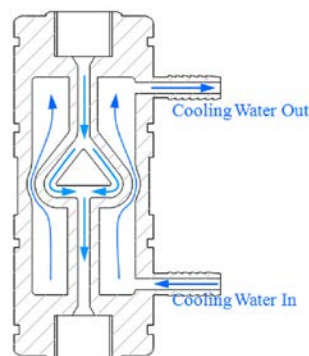
Standard NanoGenizer



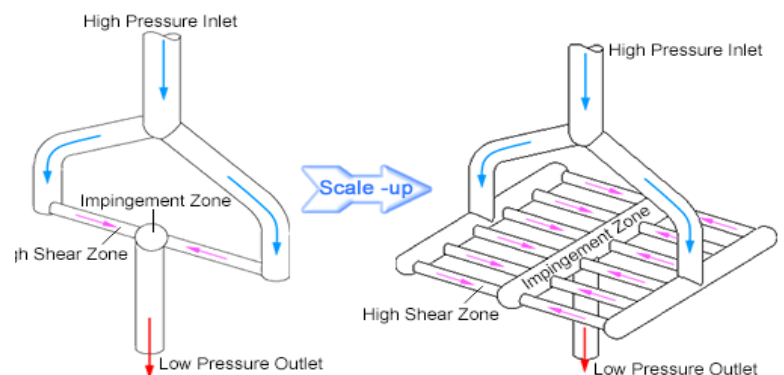
Control Screen

## Standard Features

|                     |   |
|---------------------|---|
| Parts               | Y-type Diamond interaction chamber with cooling option  |
| Control System      | High pressure programming control systems <sup>®</sup> : Touch Screen, Speed control, Auto stop control by time, pressure or temperature, settable volume control as low as 1mL |
| Pressure Gauge      | Digital display on the touch screen   |
| Inlet Type          | 1/4" HP coupling  |
| Outlet Type         | 1/4" HP coupling  |
| Feed Reservoir      | 20mL Syringe  |
| Collector Reservoir | 20mL Syringe  |
| Product Material    | 316L stainless steel, Tungsten Carbide, Viton, Teflon, UHMWPE   |
| Material Standard   | Pharmaceutical Grade, FDA & GMP approvable  |
| Warranty            | 1 year against any manufacturing defects  |



Diamond Interaction Chambers with Cooling Option



Single-Slotted Y-Type VS Multi-Slotted Y-Type



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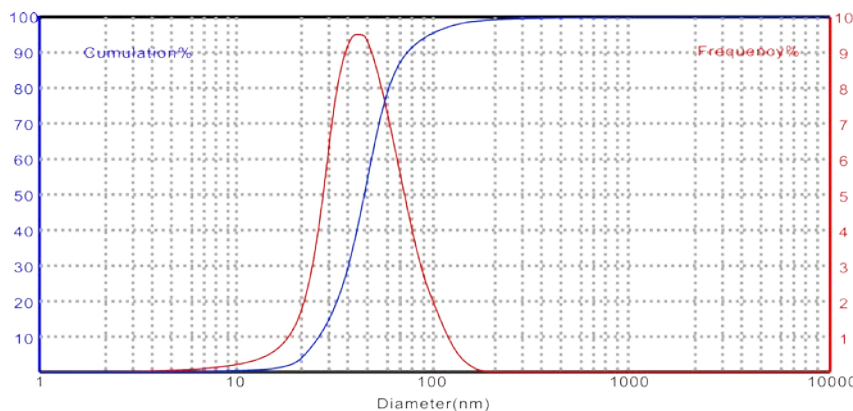
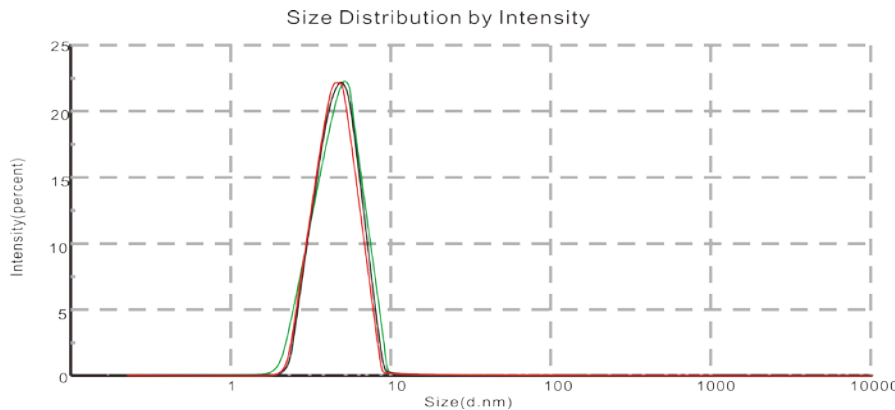
# Diamond Interaction Chamber Technology

## Unique Benefits

- Core Part of NanoGenizer Series
- Electro polishing and inner Passivation for pharmaceutical application
- Y-Type & Z-Type
- Material: 316L S/S and Diamond



Diamond Interaction Chamber (DIXC) is used to produce uniform nano-particles in high pressure homogenizers. The fixed geometry within the Y-Type and Z-Type DIXC is to create a uniform processing profile and all materials will be processed with equal disruptive forces. Single slotted Interaction Chambers have a single micro-channel and are ideal choices for small batches research, while the multi-slotted interaction chamber comprises multiple micro-channels in parallel, which can be used at industrial scales, by increasing the flow rate through the DIXC but with equal processing forces.



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# Options for NanoGenizer High Pressure Homogenizer



Inlet Reservoir: Jacketed Glass Cylinder

## Available Option

|  |  |
|--|--|
| Parts                                      | High Pressure Liposome Extruder,<br>Y-Type & Z-Type DIXCs,<br>Heat Exchanger                           |
| Control System                             | Mechanical control; Speed, start, stop control   |
| Detector                                   | Pressure gauge, Pressure and Temp.<br>transducer up to 8 optional                                      |
| Outlet type                                | Tri-Clamp or Luer  |
| <u>Heat Exchanger</u>                      | HPE-100-3D, HPE-150-3D; HPE-200-3D;  |
| <u>Liposome Extruder</u>                   | GOE-200mL; GOE-1000mL  |
| Feed Reservoir &<br>Collector<br>Reservoir | 10mL, 20mL, 50mL, 100mL, 200mL,<br>500mL Syringe, Cylinder, Tank,<br>Jacketed Glass Cylinder or Online |
| Cylinder                                   | Titanium High pressure Cylinder<br>(Resistant to strong acid and base)                                 |



Online Liposome Extruders



Sanitary Heat Exchangers



Temp. & Press Sensors



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