

## Cole-Parmer® LabGEN® 125 and 700 Homogenizer Systems

Process almost any sample, large or small!

- Process samples from 0.05 mL to 10 L
- Variable-speed motor performs at 5000 to 30,000 rpm
- Homogenize tissue samples quickly and efficiently—without worrying about cross-contamination
- Versatile—use as a handheld unit or mount to the optional stand for hands-free operation

**LabGEN 125 Homogenizer** is ergonomically designed to reduce hand strain during extended periods of operation. **LabGEN 125 Homogenizing Kits** contain everything you need to get started, including 12 plastic tip probes, tip adapter, and a storage case.

**LabGEN 700 Homogenizer** is a versatile heavy-duty unit that can handle virtually any homogenizing task—dispersion, tissue processing, cell disruption, and preparing emulsions. Process samples from 0.05 mL to 10 L at speeds up to 30,000 rpm.



### REQUIRED System Components

- 1) Homogenizer
  - 2) Rotor-stator generator OR
  - 3) Plastic tip probes and required tip adaptor 04727-88
- Optional**
- 4) Stand and Motor support rod



### 1. Homogenizers

Description	Sample volume	Plastic tip probes included	Power	Motor	Catalog number	Price
LabGEN 125 homogenizer	0.05 to 100 mL	—	115 VAC, 50/60 Hz 220 VAC, 50/60 Hz	125 W	<a href="#">GY-04727-01</a> <a href="#">GY-04727-02</a>	
LabGEN 125 homogenizer kits (include LabGEN 125 homogenizer, 12 plastic tip probes, tip adaptor 04727-88, and storage case)	0.25 to 30 mL	12 hard tissue	115 VAC, 50/60 Hz	125 W	<a href="#">GY-04727-11</a>	
			220 VAC, 50/60 Hz		<a href="#">GY-04727-12</a>	
		12 soft tissue	115 VAC, 50/60 Hz	<a href="#">GY-04727-13</a>		
			220 VAC, 50/60 Hz	<a href="#">GY-04727-14</a>		
LabGEN 700 homogenizer	0.05 mL to 10 L	—	115 VAC, 50/60 Hz 220 VAC, 50/60 Hz	700 W	<a href="#">GY-04727-03</a> <a href="#">GY-04727-04</a>	

### 2. Stainless Steel Rotor-Stator Generators

Dispersion type	Sample volume	Diameter	Length	Catalog number	Price
Fine	0.05 to 5 mL	5-mm	75	<a href="#">GY-04727-60</a>	
Coarse		5-mm		<a href="#">GY-04727-62</a>	
Fine	0.25 to 30 mL	7-mm	95	<a href="#">GY-04727-68</a>	
Fine	1.5 to 100 mL	10-mm	95	<a href="#">GY-04727-77</a>	
Fine	1.5 to 100 mL	10-mm	195	<a href="#">GY-04727-81</a>	

### 3. Plastic Tip Probes

Sample volume	Tissue type	Tip size (L x dia)	Cat. no.	Qty/pk	Price/pk
0.25 to 30 mL	Hard	110 x 7 mm	<a href="#">GY-04727-84</a>	25	
			<a href="#">GY-04727-85</a>	50	

[GY-04727-88](#) Tip adapter, required for use with plastic tip probes

### 4. Optional Stand

[GY-04727-89](#) Homogenizer stand with support rod

## Cole-Parmer® Handheld Homogenizers

Operate with just one hand

- Process 1- to 100-mL biological samples
- Lightweight and simple to use
- Select from 7000 or 10,000 rpm
- No sample loss during transfers from a blender vessel



**What's included:** a 14.5 cm long probe, stainless steel rotor stator, and a stand. The 110 VAC models include a 5-ft (1.5-m) cord with three-prong plug; 230 VAC models include a 5-ft cord only.



Capacity	Stator size	Power (50/60 Hz)	Catalog number	Price
1 to 200 mL	1 <sup>3</sup> / <sub>64</sub> " (1.3 cm)	110 VAC, 1.2 A	<a href="#">GY-04751-00</a>	
		230 VAC, 0.6 A	<a href="#">GY-04751-05</a>	
100 to 1000 mL	2 <sup>5</sup> / <sub>64</sub> " (2.5 cm)	110 VAC, 1.2 A	<a href="#">GY-04751-10</a>	
		230 VAC, 0.6 A	<a href="#">GY-04751-15</a>	



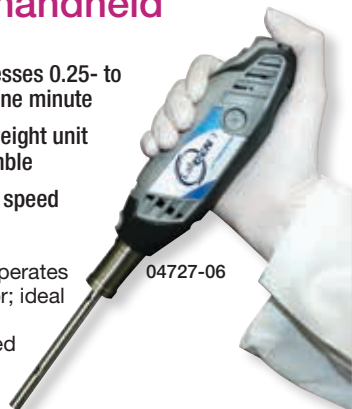
## Homogenizers

### Cole-Parmer® LabGEN® 7 Homogenizers

Don't be tied to a stand—unit can be mounted or handheld

- No more wasted time—processes 0.25- to 30-mL samples in less than one minute
- No more hand stress—lightweight unit is easy to clean and disassemble
- Powerful, yet quiet—variable speed from 5000 to 35,000 rpm

The LabGEN 7 homogenizer operates with a powerful 125-watt motor; ideal for most tissue samples. The portable LabGEN 7b is powered by a rechargeable battery for freedom of movement and to process soft tissues.



04727-06

**What's included:** 7-mm generator probe and tool kit.

LabGEN®



Description	Probe included (L x dia)	Power	Catalog number	Price
LabGEN 7	3 1/8" x 7/64" (85 x 7 mm)	115 VAC	<a href="#">GY-04727-06</a>	
		220 VAC	<a href="#">GY-04727-07</a>	
Portable LabGEN 7b	3 1/8" x 7/64" (85 x 7 mm)	115 VAC	<a href="#">GY-04727-08</a>	
		220 VAC	<a href="#">GY-04727-09</a>	

[GY-04727-16](#) Homogenizer stand

[GY-04727-17](#) Spare rechargeable battery for LabGEN 7b

### Tissue Tearor™ Homogenizer

Handle volumes from 0.5 to 50 mL

This variable-speed homogenizer rapidly homogenizes, disperses, and emulsifies small-volume samples in aqueous media. Homogenizer features a switch that lets you adjust speed from 4500 to 30,000 rpm.

Liquid media is drawn into and repeatedly cycled through the stator. The high-speed rotor rapidly disperses and disintegrates material suspended in the media. All wetted materials are 316 stainless steel (SS).

**Note:** Not intended for use with flammable solvents or in the absence of liquid media.

**What's included:** stand, 8.3 cm long x 7.0 mm diameter SS probe, and 5-ft (1.5-m) cord; 120 VAC unit has a standard plug, no plug on 220/240 VAC unit.



04750-91



04750-90



Power	Catalog number	Price
120 VAC, 50/60 Hz, 1.2 A	<a href="#">GY-04750-50</a>	
220/240 VAC, 50 Hz, 0.6 A	<a href="#">GY-04750-55</a>	

#### Replacement Probes

Diameter (cm)	Sample volume range (mL)	Length (cm)	Catalog number	Price
4.5	0.2 to 5.0	4.8	<a href="#">GY-04750-90</a>	
7	0.5 to 50	10.9	<a href="#">GY-04750-91</a>	

### Digital High-Speed Homogenizer

Choose from five generators with 1 to 2000 mL sample volumes

- Systems can be used with tough solids or large-volume samples
- Generators are made of 316 stainless steel and PTFE, providing excellent chemical compatibility

This system is ideal for batch homogenizing of cell tissues, emulsifying suspended solids, and air pollution filter extraction. The key component is the rotor-stator generator. (Order rotor-stator generators separately below.) Shielded in a 316 stainless steel shaft, the rotor acts as a centrifugal pump to recirculate the liquid and suspended solids through the generator, where shear, impact, collision, and cavitation provide rapid homogenization.

**What's included:** 10-ft (3-m) power cord (the 115 VAC model has a standard US plug; the 230 VAC model has a European plug).

**Kit adds:** pack of 10 disposable generators, stand (50703-91), boss head clamp, and strap clamp.



1  
04739-21

2



#### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator
- 3) Stand and clamps



#### 1. Homogenizer

Description	Homogenizer only		Homogenizer kit	
Catalog number	<a href="#">GY-04739-21</a>	<a href="#">GY-04739-22</a>	<a href="#">GY-04739-31</a>	<a href="#">GY-04739-32</a>
Speed range	500 to 25,000 rpm			
Batch volume range	1 to 2000 mL			
Noise rating	73 dB			
Speed adjustment	Stepless			
Wattage	800 input, 500 output			
Power	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz
Price				

#### 2. Rotor-Stator Generators

##### Specifications

**Solution compatibility:** Aqueous and organic

**Wetted materials:** PTFE, 316 SS  
**Max temp:** 302°F (150°C)

Sample volume range	Ultimate fineness	Dimensions (L x OD)	Catalog number	Price
1 to 50 mL	10 µm	108 x 8 mm	<a href="#">GY-04720-11</a>	
1 to 100 mL	10 µm	105 x 10 mm	<a href="#">GY-04720-10</a>	
10 to 1500 mL	10 µm	194 x 18 mm	<a href="#">GY-04720-12</a>	
50 to 2000 mL	10 µm	194 x 25 mm	<a href="#">GY-04719-52</a>	
100 to 2000 mL	5 µm	194 x 25 mm	<a href="#">GY-04719-53</a>	

#### 3. Stands and Clamps

[GY-50703-90](#) Plate stand, 22" high

[GY-50703-91](#) Plate stand, 31 1/2" high

[GY-50703-92](#) Plate stand, 39 1/2" high

[GY-50703-96](#) Boss head clamp

[GY-50703-70](#) Strap clamp

## Digital Homogenizer

### A wide speed range for a variety of applications

- 500-watt motor processes sample volumes from 1 to 1500 mL

The 500-watt motor offers stable operation in a variety of media samples, and variable speed control from 500 to 25,000 rpm. Stainless steel dispersion elements remove quickly and clean completely for reuse. The digital unit features electronic speed control and overload protection. The rotor-stator generator uses a pump-like action to constantly draw in sample. Through a combination of shear, impact, collision, and cavitation, the generator rapidly disperses and disintegrates the material suspended in the media. The rotor-stator generators are easily detached, making the exchange and use of two dispersing elements seamless.



#### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator

**What's included:** storage case, and power cord.

#### 1. Homogenizer



Description	Digital Homogenizer	
Catalog number	<a href="#">GY-04737-21</a>	<a href="#">GY-04737-22</a>
Speed range	500 to 25,000 rpm	
Batch volume range	1 to 1500 mL	
Noise rating	73 dB	
Speed adjustment	Stepless	
Wattage	500 input, 300 output	
Power	115 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Price		



#### 2. Stainless Steel Rotor-Stator Generators

Sample volume range	Dimensions (L x OD)	Catalog number	Price
1 to 100 mL	108 x 10 mm	<a href="#">GY-04720-84</a>	
10 to 1500 mL	204 x 19 mm	<a href="#">GY-04720-85</a>	

## Bead Mill Homogenizer and Bead Kits

### Prevent cross-contamination with disposable tubes

- Homogenize up to twelve 2-mL or 0.5-mL tubes at one time
- Quick processing inhibits sample degradation

The Omni Bead Ruptor 12 homogenizer simultaneously processes samples, from 25 µL to 1.8 mL. Unit provides efficient and consistent homogenization, as well as high yield, by vigorously and uniformly shaking the tubes. A small footprint optimizes bench space in crowded labs. Convenient front-loading tube holder position permits quick and easy loading of samples. No cool-down between runs means nonstop processing and minimal down time.

Five different bead types allow processing of different samples. Ceramic beads are ideal for soft animal, plant or human tissues. Metal beads are ideal for hard tissue types. Glass beads are ideal for processing microorganisms. Garnet beads are ideal for soil. Carbide beads are ideal for microbial and soil RNA processing.

**What's included:** power cord and sample pack of bead kits. Individual bead kits come with tubes prefilled with specified bead type.



#### Bead Mill

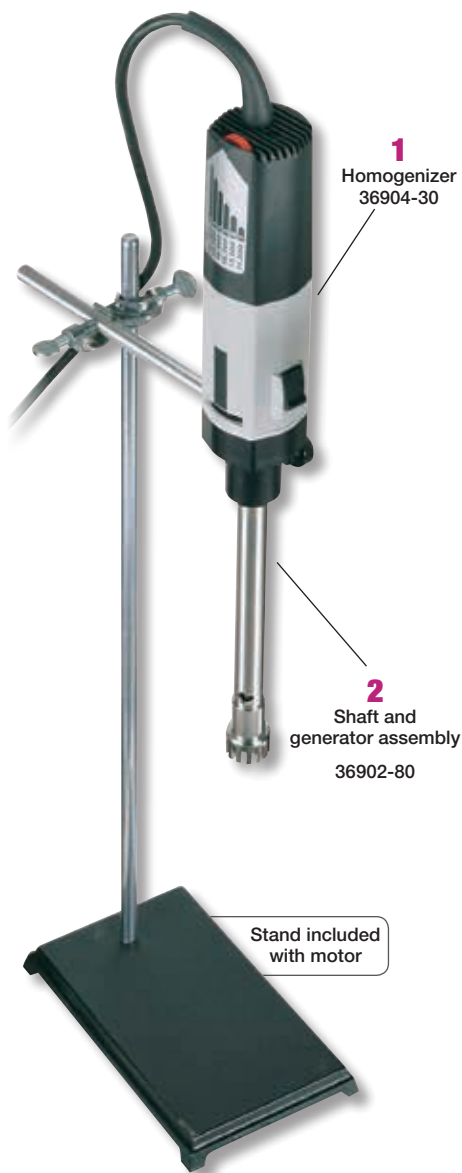
Max sample size (mL)	Catalog number	Price
1.8 mL per tube	<a href="#">GY-04728-01</a>	

#### Bead Kits and Beads

Bead size	Material	Bead Kits			Beads		
		Catalog number	Quantity	Price/pk	Catalog number	Quantity	Price/pk
0.1 mm	Glass	<a href="#">GY-04728-12</a>	50/pk		<a href="#">GY-04728-52</a>	400 g	
0.15 mm	Garnet	<a href="#">GY-04728-14</a>	50/pk		<a href="#">GY-04728-54</a>	500 g	
1.4 mm	Ceramic	<a href="#">GY-04728-16</a>	50/pk		<a href="#">GY-04728-56</a>	325 g	
0.25 mm	Carbide	<a href="#">GY-04728-17</a>	50/pk		—	—	—
2.38 mm	SS	<a href="#">GY-04728-19</a>	50/pk		<a href="#">GY-04728-59</a>	500 g	
0.5 mm	Glass	<a href="#">GY-04728-22</a>	50/pk		<a href="#">GY-04728-62</a>	400 g	
0.7 mm	Garnet	<a href="#">GY-04728-24</a>	50/pk		<a href="#">GY-04728-64</a>	500 g	
2.8 mm	Ceramic	<a href="#">GY-04728-26</a>	50/pk		<a href="#">GY-04728-66</a>	325 g	

#### Sample Tubes

Capacity	Catalog number	Quantity	Price
2 mL	<a href="#">GY-04728-41</a>	500/pk	
	<a href="#">GY-04728-43</a>	1000/pk	

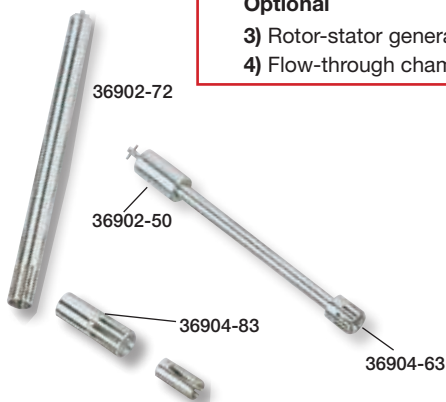


### REQUIRED System Components

- 1) Homogenizer
- 2) Shaft and generator assemblies

### Optional

- 3) Rotor-stator generators
- 4) Flow-through chamber




## Modular Homogenizer Systems Customize to your exact needs

- Quick processing protects your samples from heat damage
- Quickly process volumes from 0.2 to 5000 mL

### 1. Homogenizers

- Adjust speed from 11,000 to 25,000 rpm
- Motors can be mounted on a stand or handheld
- Process volumes up to 5000 mL

**What's included:** stand, clamp, and rotor and socket wrenches. The 120 VAC models include a cord with a NEMA 5-15P plug; the 240 VAC models include a cord with a continental European plug. 

Maximum sample volume	Use with generator size	Power	Catalog number	Price
500 mL	Up to 17 mm dia	120 VAC	<a href="#">GY-36904-00</a>	
		240 VAC	<a href="#">GY-36904-05</a>	
5000 mL	All sizes	120 VAC	<a href="#">GY-36904-20</a>	
		240 VAC	<a href="#">GY-36904-25</a>	

### 2. Shafts and Generator Assemblies

- Quick-connect 304 SS shafts and generator assemblies are interchangeable
- Easy to disassemble for cleaning or replacement

Sample volume	Dimensions		Catalog number	Price
	Shaft dia	Generator assembly		
<b>Fine viscosity</b> (for low to normal viscosity liquids requiring high degree of homogenization)				
1 to 100 mL	10 mm	10 mm	<a href="#">GY-36902-50</a>	
5 to 500 mL	10 mm	17 mm	<a href="#">GY-36902-52</a>	
10 to 2000 mL	20 mm	20 mm	<a href="#">GY-36902-54</a>	
30 to 5000 mL	20 mm	30 mm	<a href="#">GY-36902-80</a>	
<b>Normal (aqueous) viscosity</b> (for low to normal viscosity liquids—water to cooking oil)				
1 to 100 mL	10 mm	10 mm	<a href="#">GY-36902-58</a>	
5 to 500 mL	10 mm	17 mm	<a href="#">GY-36902-60</a>	
10 to 2000 mL	20 mm	20 mm	<a href="#">GY-36902-62</a>	
30 to 5000 mL	20 mm	30 mm	<a href="#">GY-36902-64</a>	
<b>Coarse viscosity</b> (for medium viscosity liquids or course media)				
1 to 100 mL	10 mm	10 mm	<a href="#">GY-36902-66</a>	
5 to 500 mL	10 mm	17 mm	<a href="#">GY-36902-68</a>	
10 to 2000 mL	20 mm	20 mm	<a href="#">GY-36902-70</a>	
30 to 5000 mL	20 mm	30 mm	<a href="#">GY-36902-72</a>	

### 3. Optional Rotor-Stator Generators

Replacement for stator generators customize your system to your unique processing requirements.

Dimensions	Catalog number	Price
<b>Fine viscosity</b> (for low to normal viscosity liquids requiring a very high degree of homogenization)		
10 mm dia	<a href="#">GY-36904-61</a>	
20 mm dia	<a href="#">GY-36904-63</a>	
<b>Aqueous viscosity</b> (for low to normal viscosity liquids—water to cooking oil)		
17 mm	<a href="#">GY-36904-72</a>	
20 mm dia	<a href="#">GY-36904-73</a>	
<b>Coarse viscosity</b> (for medium viscosity liquids or coarse media)		
17 mm dia	<a href="#">GY-36904-82</a>	
20 mm dia	<a href="#">GY-36904-83</a>	

### 4. Flow-through Chamber

Chamber lets you process continually. Features 20-mm barbed ports. Use with sealed shaft 36902-54 only.

[GY-36904-90](#) Flow-through chamber



## Homogenizer Systems

### Process virtually any sample in 30 seconds

- Powerful motors process samples ranging from 0.05 mL to 10 L
- Use optional aerosol-sealed assembly to reduce airborne sample contamination
- Process a wide range of samples within the same container



#### REQUIRED System Components

- 1) Homogenizer
- Choose
- 2) Rotor-stator generators or
  - 3) Aerosol-sealed assembly

### 1. Homogenizers

**Variable-Speed Homogenizer** includes adjustable motor stand assembly. **Programmable Variable-Speed Homogenizer** allows the user to set up to 12 programs with 12 individual time and speed steps. An RS-232 interface allows automated processing or data logging. Includes adjustable stand.

**What's included:** 6-ft (1.8-m) power cord and tool kit.

Sample volume range	Watts	Motor hp	Maximum motor speed	115 VAC, 60 Hz		220 VAC, 50 Hz	
				Cat. no.	Price	Cat. no.	Price
<b>Variable-speed homogenizer</b>							
0.03 mL to 10 L	600	0.8	18,000 rpm	<a href="#">GY-04728-00</a>		<a href="#">GY-04728-05</a>	
<b>Programmable variable-speed homogenizer</b>							
0.03 mL to 10 L	700	1.0	20,000 rpm	<a href="#">GY-04728-70</a>		<a href="#">GY-04728-75</a>	

### 2. Rotor-Stator Generators

Can be used with sealed assemblies or in any open container with the use of adapter 04729-58. Easy to disassemble and clean, or entire assembly can be autoclaved.

Sample volume range	Dispersion type	Length	Catalog number	Price
<b>5-mm diameter generators</b>				
0.05 to 5 mL	Fine	95 mm	<a href="#">GY-04729-60</a>	
<b>10-mm diameter generators</b>				
1.5 to 100 mL	Fine	95 mm	<a href="#">GY-04729-26</a>	
	Coarse	95 mm	<a href="#">GY-04729-28</a>	
<b>20-mm diameter generators</b>				
50 mL to 2 L	Fine	145 mm	<a href="#">GY-04729-38</a>	

**GY-04729-58 Adapter**; required to use rotor-stator generators in open containers



04729-58

### 3. Aerosol-Sealed Assemblies

Reduce airborne sample contamination, reduce foaming, and provide an added measure of protection to the operator. Meet NIH and CDC guidelines for aerosol containment. Include an interchangeable blade and PTFE bearings.

Sample range	Blade size	Use with generators	Catalog number	Price
<b>Aerosol-sealed assemblies with glass mixing chamber</b>				
5 to 200 mL	1" dia	04729-38	<a href="#">GY-04729-10</a>	
75 to 450 mL	2" dia	04729-38	<a href="#">GY-04729-12</a>	
125 to 800 mL	2" dia	04729-38	<a href="#">GY-04729-14</a>	
<b>Aerosol-sealed assemblies with 303 stainless steel mixing chamber</b>				
5 to 65 mL	1" dia	04729-26, -28	<a href="#">GY-04729-02</a>	
100 to 450 mL	2" dia	04729-38	<a href="#">GY-04729-06</a>	

