

# Quick Connect® Generators for every application

Every PRO generator is engineered for multiple applications and long service life. Made from highly durable 316 stainless steel, they can be completely sterilized by hot air, autoclaving, flaming or chemical processes, either as an assembly or disassembled into components. Every PRO generator features PRO's QUICK CONNECT® design to remove or lock a generator in place with an easy quarter-turn. PRO HD generators are designed for rigorous conditions, such as running for an excessive time, processing gritty materials, and when cleaning after each use is not possible. PRO CRYO generators allow users to cryogenically mill soil and sediment samples and to break down frozen materials. Their unique design enables faster, more complete processing of those types of samples than possible with other homogenizing equipment.

For item part numbers refer to page 11.

		GENERATORS (DIA X LENGTH)	TYPE	COMPATIBLE MODELS	RECOMMENDED TUBE, BEAKER AND CONTAINER SIZES
<b>5 mm</b>		5mm x 75mm	Flat bottom	All models	0.5ml, 1.5ml, 2.0ml tubes <i>(5mm generator for sample vols. &lt;0.4ml)</i>
<b>7 mm</b>		7mm x 75mm	Saw tooth	All models	1.5ml, 2.0ml, 5.0ml tubes
		7mm x 95mm	Saw tooth	All models	1.5ml, 2.0ml, 5.0 ml, 10ml tubes
		7mm x 120mm*	Saw tooth	All models	10ml, 15ml tubes
<b>10 mm</b>		10mm x 105mm	Saw tooth	All models	10ml, 50ml tubes
		10mm x 115mm	Saw tooth	All models	10ml, 15ml, 50ml tubes
		10mm x 150mm*	Saw tooth	All models	15ml tubes
<b>20 mm</b>		20mm x 105mm	Saw tooth	All models	50ml tubes, small beakers
		20mm x 115mm	Saw tooth	All models	50ml tubes, small beakers
		20mm x 150mm*	Saw tooth	PRO250 and larger models	Small/medium beakers
		20mm x 200mm*	Saw tooth	PRO250 and larger models	Large beakers and containers
<b>30 mm</b>		30mm x 115mm	Open slotted	PRO250 and larger models	Small beakers
		30mm x 150mm*	Open slotted	PRO250 and larger models	Small, medium beakers
		30mm x 200mm*	Open slotted	PRO250 and larger models	Large beakers and containers
		30mm x 200mm HD*	Open slotted	PRO250 and larger models	Large beakers and containers
<b>37 mm</b>		37mm x 115mm	Open slotted	PRO350D and larger models	Small beakers
		37mm x 150mm*	Open slotted	PRO350D and larger models	Small, medium beakers
		37mm x 200mm*	Open slotted	PRO350D and larger models	Large beakers and containers
		37mm x 200mm HD*	Open slotted	PRO350D and larger models	Large beakers and containers
		37mm x 340mm*	Open slotted	PRO400DEL	Large containers
<b>43 mm</b>		43mm x 115mm	Open slotted	PRO350D and larger models	Small beakers
		43mm x 150mm*	Open slotted	PRO350D and larger models	Small, medium beakers
		43mm x 200mm*	Open slotted	PRO350D and larger models	Large beakers and containers
		43mm x 200mm HD*	Open slotted	PRO350D and larger models	Large beakers and containers
		43mm x 340mm*	Open slotted	PRO400DEL	Large containers
<b>59 mm</b>		59mm x 115mm	Open slotted	PRO350D and larger models	Small beakers
		59mm x 150mm*	Open slotted	PRO350D and larger models	Small, medium beakers
		59mm x 200mm*	Open slotted	PRO350D and larger models	Large beakers and containers
		59mm x 200mm HD*	Open slotted	PRO350D and larger models	Large beakers and containers
<b>Cryo</b>		50mm x 150mm	Cryogenic	PRO250 and larger models	Small, medium beakers
		70mm x 150mm	Cryogenic	PRO250 and larger models	Small, medium beakers

\* FOR PROPER HOMOGENIZATION AND TO PROTECT BOTH THE GENERATOR AND THE SAMPLE this generator should only be used when the sample height in your tube/container comes at least half-way up the generator shaft. Compare the shaft length of this generator to your total sample height to ensure that your sample height is equal to or greater than half of the generator shaft length.



# Multi-Gen®

## The better alternative to plastic disposable generator probes

Multi-Gen® generator probes are the better alternative to disposable plastic generator probes. This unique equipment is a reusable 7mm diameter generator probe manufactured from superior 316 stainless steel and PTFE, which allows for homogenizing samples without cross contamination and without the need to stop and clean a generator between samples. A Multi-Gen generator probe can quickly lock into the special Multi-Gen Adapter to provide hands-free ejection of the probe, minimizing the chance of accidental contamination. Multi-Gen generator probes are offered in multi-packs of 12 or 24 for convenience.

### Advantages over plastic disposable generator probes:

**First advantage,** Multi-Gen generator probes can process more difficult samples, including tough tissues.

**Second advantage,** Multi-Gen generator probes can be sterilized by any method, including flaming and autoclaving.

**Third advantage,** Multi-Gen generator probes are more economical because of their ability to be reused an unlimited number of times not like plastic disposable generator probes

### Multi-Gen 7 Features:

- Flat bottom design – ideal for liquid and soft samples
- Shaft length – best for microtubes to 5ml tubes

### Multi-Gen 7XL Features:

- Open slotted tooth design – ideal for the softest to the toughest of samples
- Longer shaft, approximately 115mm – perfect for sample volumes from microtubes to 50ml tubes

### Multi-Gen 7 and 7XL COMPONENTS AVAILABLE INDIVIDUALLY

Item No.	Description
07-07200	<b>Multi-Gen Adapter</b> Required when using either Multi-Gen generator
02-070MG-12	<b>Multi-Gen 7 Generators (12/package)</b>
02-070MG-24	<b>Multi-Gen 7 Generators (24/package)</b>
02-070MGXL-12	<b>Multi-Gen 7XL Generators (12/package)</b>
80-00218	<b>Multi-Gen Ejector Clamp Assembly</b> For use with 80-00200 PRO200 Stand Assembly (see page 3) and Multi-Gen 7 generators only. Includes: Post clamp assembly, cross rod assembly, ejector collar
03-11703P	<b>PTFE Bearings</b> Replacement PTFE bearings for use in Multi-Gen 7 and 7XL generators

### Most recommended motor unit for use with the Multi-Gen 7:

01-01200	<b>PRO200 Homogenizer</b> 120v homogenizer (see page 3)
01-02200	<b>PRO200 Homogenizer</b> 220v homogenizer (see page 3)
80-00200	<b>PRO200 Stand Assembly</b> 7 x 10 in. vinyl-padded base with easy-lift mechanism (see page 3)

**NEXT-DAY DELIVERY ON THIS ITEM and most parts and accessories**

## PRO Multi-Gen 7 and 7XL

Tougher than disposable generators – and more economical



Multi-Gen 7 contains 7mm stainless steel generators in convenient 12- or 24-count packages



Multi-Gen 7XL (top) and 7 generators cover the spectrum of sample volumes.



Multi-Gen 7XL is a package of 12 7mm open-slotted generators

Order toll-free: 1-800-5-THE PRO (1-800-584-3776)



# PRO Deflector Heads

## Enhance sample movement for improved homogenization

PRO Scientific deflector heads are specifically designed to enhance the homogenization of larger volume and higher viscosity materials.

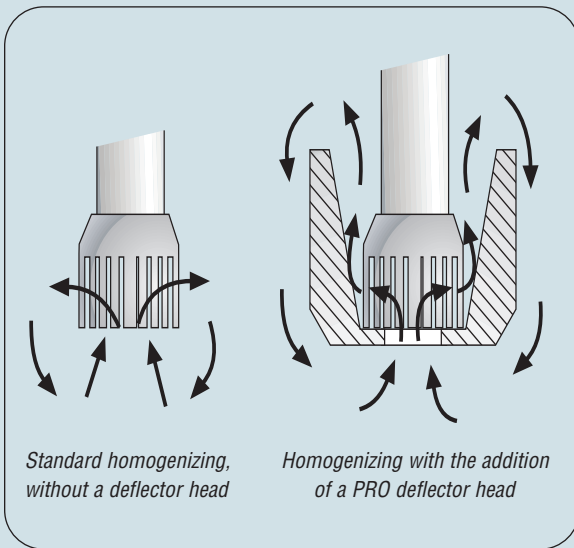
The deflector head design creates vertical movement of heavy materials which would otherwise remain motionless, and promotes increased flow on larger volume samples. When processing viscous materials like creams and lotions, the PRO homogenizer deflector head forces materials from the generator tip up its tapered walls, creating increased vertical movement of the entire sample (see the figure, below left). The material is then repeatedly recycled back down to the bottom of the generator and up through the deflector head until a homogeneous mixture is achieved.

PRO deflector homogenizer heads are available in acetyl resin and stainless steel, and fit easily on PRO generators with diameters of 20 mm or more.



### PRO Deflector Heads

Enhance homogenization of larger volume and higher viscosity samples



### PRO Deflector Heads

Item No.	Description
02-20000 *	Deflector Head for 20mm diameter generator
02-30000 *	Deflector Head for 30mm diameter generator
02-37000 *	Deflector Head for 37mm diameter generator
02-43000 *	Deflector Head for 43mm diameter generator
02-59000 *	Deflector Head for 59mm diameter generator

\* Specify material: acetyl resin (D) or stainless steel (S). Deflector head includes mounting hardware.

**Homogenizing Hint**

Always begin homogenizing at a low rpm, and then gradually increase the speed to your target level.

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## PRO Safety Seal®

Tubes and Chamber Assemblies for safely homogenizing volatile materials and protecting samples from contamination

*PRO SAFETY SEAL® Tubes and Chamber Assemblies are by far the industry's safest method of homogenizing with either a blade or a rotor stator generator. Their design provides a two-way barrier, protecting the operator from hazardous aerosols generated during processing while isolating the sample from external contaminants. In addition, the unique design of PRO SAFETY SEAL assemblies will not permit the user to operate the homogenizer with the blade exposed: the blade assembly cannot be engaged to the drive motor unless the chamber is attached.*

### PRO ST (Sealed Tube) Series

Item No.	Description	Treatable Vol. (ml)
ST-2	1.5ml/2ml Assembly w/ 5mm Generator	0.2 - 1.0
ST-5	5ml Assembly w/5mm Generator	0.5 - 3.0
ST-10	16ml Assembly w/7mm Generator	2.0 - 10
ST-15	19ml Assembly w/7mm Generator	5.0 - 11
ST-50-10	50ml Assembly w/10mm Generator	5.0 - 40
ST-50-20	50ml Assembly w/20mm Generator	5.0 - 25

### PRO Glass Chamber Assemblies

Item/Description	Treatable Vol. (ml)
473ml Chamber Assembly w/2" Dia. Blade	50 - 150
946ml Chamber Assembly w/2" Dia. Blade	100 - 800
473ml Chamber Assembly w/20mm Generator	150 - 300
473ml Chamber Assembly w/30mm Generator	150 - 350
946ml Chamber Assembly w/20mm Generator	350 - 800
946ml Chamber Assembly w/30mm Generator	350 - 800

### PRO Stainless Steel Chamber Assemblies

Item/Description	Treatable Vol. (ml)
70ml Chamber Assembly w/1" Dia. Blade	10 - 60
600ml Chamber Assembly w/2" Dia. Blade	100 - 500
70ml Chamber Assembly w/10mm Generator	20 - 60
70ml Chamber Assembly w/20mm Generator	20 - 60
600ml Chamber Assembly w/20mm Generator	250 - 500
600ml Chamber Assembly w/30mm Generator	250 - 500
* 1.2l Chamber Assembly w/70mm Generator (not sealed)	100 - 1L

\* No safety seal, splash guard top only



PRO SAFETY SEAL®  
ST SERIES

PRO SAFETY SEAL®  
GLASS CHAMBER  
ASSEMBLIES

PRO SAFETY SEAL®  
STAINLESS STEEL  
CHAMBER ASSEMBLIES

### PRO Chamber and Motor Selection Chart with Replacement Components

	Part No.	Sealed Tube/Size	Blade (B)/ Gener. (G)	Shaft Assembly	Tube or Chamber	Cover	Seal or Plug	Gasket	Cage or Adapter	Insert
ST Series	15-32002	ST-2	G	02-05075	11-03010	14-01500	*	N/A	11-02503	14-51017-05
	15-32005	ST-5	G	02-05075	11-03050	14-01150	14-21051	N/A	11-02053	N/A
	15-32010	ST-10	G	02-07095	11-03100	14-01150	14-21151	N/A	11-02103	N/A
	15-32015	ST-15	G	02-07120	11-03150	14-01150	14-21151	N/A	11-02153	N/A
	15-32050-10	ST-50	G	02-10105	11-03500	14-01500	14-21501-10	N/A	11-02503	N/A
	15-32050-20	ST-50	G	02-20105	11-03500	14-01500	14-21501-20	N/A	11-02503	N/A
Glass Chamber Assembly	15-19473	473ml	B2	12-00115	11-01470	14-02600	14-12001	99-00021	14-00002	14-00003
	15-19946	946ml	B2	12-00150	11-01940	14-02600	14-12001	99-00021	14-00002	14-00003
	15-12473-20	473ml	G	02-20115	11-01470	14-01600	14-11001	99-00021	14-00002	N/A
	15-12473-30	473ml	G	02-30115	11-01470	14-01600	14-11001	99-00021	14-00002	N/A
	15-12946-20	946ml	G	02-20150	11-01940	14-01600	14-11001	99-00021	14-00002	N/A
15-12946-30	946ml	G	02-30150	11-01940	14-01600	14-11001	99-00021	14-00002	N/A	
Stainless Steel Chamber Assembly	15-09070	70ml	B1	12-00115	11-00700	14-02700	14-02701	99-00022	N/A	N/A
	15-09600	600ml	B2	12-00150	11-00600	14-02600	14-12601	99-00020	N/A	14-00003
	15-02070-10	70ml	G	02-10115	11-00700	14-01500	14-11701	99-00022	N/A	N/A
	15-02070-20	70ml	G	02-20115	11-00700	14-01500	14-11701	99-00022	N/A	N/A
	15-02600-20	600ml	G	02-20150	11-00600	14-01600	14-11601	99-00020	N/A	N/A
	15-02600-30	600ml	G	02-30150	11-00600	14-01600	14-11601	99-00020	N/A	N/A
	15-081200	600ml	G	02-70150	11-00120	14-33120	N/A	N/A	N/A	N/A

B1 = 1 inch dia blade, #04-02001

B2 = 2 inch dia blade, #04-02002

\*14-21011-05 Upper Seal and 14-21016-05 Lower Seal

**NEXT-DAY DELIVERY  
ON THESE ACCESSORIES  
and most homogenizers**





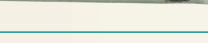




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<b>7 mm</b>		7mm x 75mm 7mm x 95mm 7mm x 120mm*	Saw tooth Saw tooth Saw tooth	All models All models All models	1.5ml, 2.0ml, 5.0ml tubes 1.5ml, 2.0ml, 5.0 ml, 10ml tubes 10ml, 15ml tubes
<b>10 mm</b>		10mm x 105mm 10mm x 115mm 10mm x 150mm*	Saw tooth Saw tooth Saw tooth	All models All models All models	10ml, 50ml tubes 10ml, 15ml, 50ml tubes 15ml tubes
<b>20 mm</b>		20mm x 105mm 20mm x 115mm 20mm x 150mm* 20mm x 200mm*	Saw tooth Saw tooth Saw tooth Saw tooth	All models All models PRO250 and larger models PRO250 and larger models	50ml tubes, small beakers 50ml tubes, small beakers Small/medium beakers Large beakers and containers
<b>30 mm</b>		30mm x 115mm 30mm x 150mm* 30mm x 200mm* 30mm x 200mm HD*	Open slotted Open slotted Open slotted Open slotted	PRO250 and larger models PRO250 and larger models PRO250 and larger models PRO250 and larger models	Small beakers Small, medium beakers Large beakers and containers Large beakers and containers
<b>37 mm</b>		37mm x 115mm 37mm x 150mm* 37mm x 200mm* 37mm x 200mm HD* 37mm x 340mm*	Open slotted Open slotted Open slotted Open slotted Open slotted	PRO350D and larger models PRO350D and larger models PRO350D and larger models PRO350D and larger models PRO400DEL	Small beakers Small, medium beakers Large beakers and containers Large beakers and containers Large containers
<b>43 mm</b>		43mm x 115mm 43mm x 150mm* 43mm x 200mm* 43mm x 200mm HD* 43mm x 340mm*	Open slotted Open slotted Open slotted Open slotted Open slotted	PRO350D and larger models PRO350D and larger models PRO350D and larger models PRO350D and larger models PRO400DEL	Small beakers Small, medium beakers Large beakers and containers Large beakers and containers Large containers
<b>59 mm</b>		59mm x 115mm 59mm x 150mm* 59mm x 200mm* 59mm x 200mm HD*	Open slotted Open slotted Open slotted Open slotted	PRO350D and larger models PRO350D and larger models PRO350D and larger models PRO350D and larger models	Small beakers Small, medium beakers Large beakers and containers Large beakers and containers
<b>Cryo</b>		50mm x 150mm 70mm x 150mm	Cryogenic Cryogenic	PRO250 and larger models PRO250 and larger models	Small, medium beakers Small, medium beakers

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## PRO Generator Replacement Components

GENERATOR Part No.	Size (mm)	Tube and Collar	Rotor Head	Rotor Shaft	Rotor Collar	Rotor Knife	Washer	Upper Bearing	Mid Bearing	Lower Bearing
02-05075	5 x 75	08-05075	N/A	05-05075	07-00150	04-05150	99-03302	03-10001	N/A	03-21002
02-07075	7 x 75	08-07075	N/A	05-07075	07-00150	04-07150	99-03302	03-10001	N/A	03-21003
02-07095	7 x 95	08-07095	N/A	05-07095	07-00150	04-07150	99-03302	03-10001	N/A	03-21003
02-07120	7 x 120	08-07120	N/A	05-07120	07-00150	04-07150	99-03302	03-10001	03-21103	03-21003
02-10105	10 x 105	08-10105	N/A	05-10105	07-00150	04-10150	99-03302	03-10001	N/A	03-11004
02-10115	10 x 115	08-10115	N/A	05-10115	07-00150	04-10150	99-03302	03-10001	N/A	03-11004
02-10150	10 x 150	08-10150	N/A	05-10150	07-00150	04-10150	99-03302	03-10001	03-21104	03-11004
02-20105	20 x 105	08-20105	N/A	05-20105	07-00150	04-20150	99-03302	03-10001	N/A	03-11005
02-20115	20 x 115	08-20115	N/A	05-20115	07-00150	04-20150	99-03302	03-10001	N/A	03-11005
02-20150	20 x 150	08-20150	N/A	05-20150	07-00150	04-20150	99-03302	03-10001	03-21104	03-11005
02-20200	20 x 200	08-20200	N/A	05-20200	07-00150	04-20150	99-03302	03-10001	03-21104	03-11005
02-30115	30 x 115	08-01115	16-30150	05-20115	07-00150	04-30150	99-03302	03-10001	N/A	03-11037
02-30150	30 x 150	08-01150	16-30150	05-20150	07-00150	04-30150	99-03302	03-10001	03-21104	03-11037
02-30200	30 x 200	08-01200	16-30150	05-20200	07-00150	04-30150	99-03302	03-10001	03-21104	03-11037
02-30200HD	30 x 200	08-01200HD	16-30150	05-25200P	07-00150	04-30200	99-03302	03-10001	N/A	03-11250
02-37115	37 x 115	08-01115	16-37150	05-20115	07-00150	04-37150	99-03302	03-10001	N/A	03-11037
02-37150	37 x 150	08-01150	16-37150	05-20150	07-00150	04-37150	99-03302	03-10001	03-21104	03-11037
02-37200	37 x 200	08-01200	16-37150	05-20200	07-00150	04-37150	99-03302	03-10001	03-21104	03-11037
02-37200HD	37 x 200	08-01200HD	16-37150	05-25200P	07-00150	04-37200	99-03302	03-10001	N/A	03-11250
02-37340	37 x 340	08-01340	16-37150	05-20380	07-00150	04-37150	99-03302	03-10001	03-21104	03-11037
02-43115	43 x 115	08-01115	16-43150	05-20115	07-00150	04-43150	99-03302	03-10001	N/A	03-11037
02-43150	43 x 150	08-01150	16-43150	05-20150	07-00150	04-43150	99-03302	03-10001	03-21104	03-11037
02-43200	43 x 200	08-01200	16-43150	05-20200	07-00150	04-43150	99-03302	03-10001	03-21104	03-11037
02-43200HD	43 x 200	08-01200HD	16-43150	05-25200P	07-00150	04-43200	99-03302	03-10001	N/A	03-11250
02-43340	43 x 340	08-01340	16-43150	05-20380	07-00150	04-43150	99-03302	03-10001	03-21104	03-11037
02-59115	59 x 115	08-01115	16-59150	05-20115	07-00150	04-59150	99-03302	03-10001	N/A	03-11037
02-59150	59 x 150	08-01150	16-59150	05-20150	07-00150	04-59150	99-03302	03-10001	03-21104	03-11037
02-59200	59 x 200	08-01200	16-59150	05-20200	07-00150	04-59150	99-03302	03-10001	03-21104	03-11037
02-59200HD	59 x 200	08-01200HD	16-59150	05-25200P	07-00150	04-59200	99-03302	03-10001	N/A	03-11250
02-59340	59 x 340	08-01340	16-59150	05-20380	07-00150	04-59150	99-03302	03-10001	03-21104	03-11037
02-50150	50 x 150	08-22150	16-50150	05-22150	07-22150	04-22001 04-22003	N/A	03-00315	N/A	03-00315
02-70150	70 x 150	08-22150	16-70150	05-22150	07-22150	04-22002 04-22003	N/A	03-00315	N/A	03-00315

## Ordering PRO Generator Parts with the Generator Part Numbering System

From the list of generators to the left, an ordering part number can be generated by simply taking the prefix 02- followed by the diameter of the shaft and the length of the generator:

**02 – X X X X X**

**Ex: 5mm x 75mm = 02 – 05075**

If the generator is available with a designation of HD, then simply add an “HD” at the end of the part number:

**Ex: 43mm x 200mm HD = 02 – 43200HD**

## Important information for generators with a length greater than 115mm

To ensure proper homogenization and to protect both the generator and sample, generators with a length greater than 115mm should only be used when the sample height in your tube or container comes at least halfway up the generator shaft. Check the generator sizes listed above for the length you are interested in and compare it to the total sample height you will be homogenizing to ensure that your sample height is equal to or greater than half of the generator length.