

BeadBlaster™ 24 and 24R Microtube Homogenizers



- + Fast, efficient homogenization, usually in 35 seconds or less
- + For all sample types, from soft tissue to bone
- + High throughput, up to 24 samples
- + True refrigeration - no external connections, dry ice or liquid nitrogen (D2400-R model only)

The BeadBlaster™ 24 completely lyses, grinds and homogenizes a broad variety of biological samples. Even the most difficult and resistant samples are fully homogenized, often in 35 seconds or less. The stainless steel tube carrier subjects up to 24 samples to an optimized, high speed, 3D motion, producing high energy impacts between the samples and micro-beads to release cellular contents. To protect heat sensitive samples, the unit can be digitally programmed to operate in shortened consecutive cycles with a rest period in between.

Benchmark offers an assortment of prefilled tube kits for a variety of sample types. The popular Triple-Pure™ kits include acid washed, heat treated, zirconium beads. The beads are tested to be free of nucleases, making them ideal for molecular biology applications. A convenient starter kit (D1032-SK) is available to accommodate a broad range of samples and optimize applications.



Stainless steel, 24 position tube carrier



Video Demonstration



Technical Data:

Speed:	4.00 to 7.00 m/s (2430 to 4260rpm)
Speed Increments:	0.05 m/s
Capacity:	24 x 2.0ml tubes or 12 x 5ml
Cycle Time:	1 to 90 sec. (1 sec. increments)
Pause Between Cycles:	0 to 2 min. (1 sec. increments)
Max Cycles Per Program:	10
Program Memory:	50
Accel/Decel:	<2 sec. / <2 sec., D2400 <4 sec. / <4 sec., D2400-R
Noise Level:	<68 db, D2400 <65 db, D2400-R
Cooling Method:	Compressor, D2400-R
Precool Ambient to 0°C	<30 minutes, D2400-R
Operating Temp. Range:	+4 °C to +65°C
Temp. Range:	-10°C to ambient, D2400-R
Dimensions: (W x D x H)	11 x 14.2 x 15.2 in. / 28 x 36 x 38.5cm, D2400 12.6 x 20.1 x 16.2 in. / 32 x 51 x 41cm, D2400-R
Weight:	55 lbs (25kg), D2400 88 lbs (40kg), D2400-R
Electrical:	Universal Voltage 100V to 240V, 50-60Hz, 600W, D2400 100V to 240V, 50-60Hz, 1000W, D2400-R
Warranty:	2 Years

Additional bead types are also available (in both bulk and prefilled kits). Please contact Benchmark for a complete listing.

Ordering Information:

Item No.	Description:
D2400*	BeadBlaster™ 24 Microtube Homogenizer with 24 x 2.0ml tube holder
D2400-R*	BeadBlaster™ 24 Refrigerated Microtube Homogenizer with 24 x 2.0ml tube holder
D2400-RSV2	Optional tube holder, 12 x 5ml
Prefilled Tube Kits:	Include 2.0ml non-skirted screw cap tubes with caps, sealing rings and beads as specified below:
D1031-01	Standard glass beads, Ø 0.1mm, 50pk.
D1031-05	Standard glass beads, Ø 0.5mm, 50pk.
D1031-10	Standard glass beads, Ø 1.0mm, 50pk.
D1032-01	Triple-Pure™, high impact zirconium beads, Ø 0.1mm, 50pk.
D1032-05	Triple-Pure™, high impact zirconium beads, Ø 0.5mm, 50pk.
D1032-10	Triple-Pure™, high impact zirconium beads, Ø 1.0mm, 50pk.
D1032-15	Triple-Pure™, high impact zirconium beads, Ø 1.5mm, 50pk.
D1032-30	Triple-Pure™, high impact zirconium beads, Ø 3.0mm, 50pk.
D1032-SK	Starter Kit, 10 ea. of Ø 0.1, 0.5, 1.0, 1.5 & 3.0 Triple-Pure™, high impact zirconium
D1032-60	One ceria zirconium oxide satellite, Ø 6.0mm, 50pk.
D1033-28	Stainless steel beads, Ø 2.8mm, 50pk.
D1033-30G	Garnet shards with 1 zirconium bead Ø 6.0mm, 50pk.
D1034-MX	Mixed format, 0.1mm silica, 1.4mm zirconium, 4mm silica, 50pk.
D1031-T20	Empty tubes (2.0ml) pack of 1000
D1031-RFS	Reinforced empty tubes (2.0ml) pack of 600
D1034-28	5ml tubes with stainless beads, Ø 2.8mm, 50pk.

*Includes US plug. For EU plug, please add (-E).

BeadBlaster™ 96 Ball Mill Homogenizer



- + Rapid cell lysis for extraction of DNA, RNA and proteins in plates and microtubes
- + Fine grinding of cannabis/hemp samples
- + Able to homogenize bone, teeth and other hard samples
- + Homogenize/blend powders and suspensions



Ordering Information:

Item No.	Description:
IPD9600*	BeadBlaster™ 96 Ball Mill Homogenizer for plates, tubes and jars
Accessories:	All accessories ordered separately.
Microplates:	
IPD9600-96	Adapter for 96 well plates, set of 2, required for processing microplates
IPD1196-40	96 well plate, 2ml, prefilled w/4mm balls, with sealing mat, 10pk.
IPD1196-MP	96 well plate, 2ml, square well, 10pk.
IPD1196-CM	EVA cap mat for above plate, 10pk.
IPD9600-BD28	96 well ball dropper for 2.8mm balls
IPD9600-BD4	96 well ball dropper for 4mm balls
IPD9600-BD5	96 well ball dropper for 5mm balls
D1133-28	2.8mm stainless steel balls, 1000pk.
Microtubes:	
IPD9600-1520	Adapter for 32x2ml tubes, PTFE, set of 2, requires use of IPD9600-96
IPD9600-96A2	Rack for 20x2ml tubes, set of 2, requires use of IPD9600-96
IPD9600-96	Adapter for microplates and tube holders, set of 2
D1032-SK	Starter kit of TriplePure™ Prefilled Bead Tubes, 10 tubes each, prefilled with 0.1, 0.5, 1.0, 1.5 and 3.0mm diameter beads, certified nuclease and protease free
50mL Tubes:	
IPD9600-50T	Adapter for 4 x 15/50ml tubes, set of 2
IPD9600-3858-1	Ceramic homogenizers w/angled ends, 3/8" x 5/8", pk of 100
IPD9600-3878-1	Ceramic homogenizers w/angled ends, 3/8" x 7/8", pk of 100
Grinding Jars and Balls:	
IPD9600-25S	Stainless steel jar, 25ml, set of 2
IPD9600-10BS	Stainless steel grinding ball, 10mm, 500g
IPD9600-50BS	Stainless steel jar, 50ml, set of 2
IPD9600-25BS	Stainless steel grinding ball, 25mm, 500g
IPD9600-25TC	Tungsten carbide jar, 25ml, set of 2
IPD9600-10TCB	Tungsten carbide grinding ball, 10mm, each
IPD9600-35ZO	Zirconium oxide jar, 35ml, set of 2
IPD9600-15ZOB	Zirconium oxide grinding ball, 15mm, each
IPD9600-35PTFE	PTFE grinding jar, 35ml, set of 2
IPD9600-15PTFB	PTFE grinding ball, steel core, 15mm, each
IPD9600-CK	Cryo Kit, includes bucket, gloves, goggles and tongs, for use with liquid nitrogen

*Includes US plug. For EU plug, please add (-E).

Technical Data:

Speed:	0.00 to 0.00 m/s (180 to 1800rpm)
Speed Increments:	100rpm
Capacity:	2 microplates, 8 x 50ml tubes, 64 x 2ml tubes
Cycle Time:	1 sec. to 59min.: 59 sec. (1 sec. increments)
Pause Between Cycles:	1 sec. to 59min.: 59 sec. (1 sec. increments)
Max Cycles Per Program:	99
Program Memory:	9
Feed Size:	<10mm
Final Fineness*:	<5µm
Operating Temp. Range:	+4°C to +40°C (ambient temp.)
Dimensions: (W x D x H)	13.2 x 19.7 x 14.4 in. / 33.5 x 50 x 36.6 cm
Weight:	141 lbs (64kg)
Electrical:	Universal Voltage 120V to 220V, 50-60Hz, 200W, 6A
Warranty:	2 Years

*Dependent on sample material and grinding configuration

Additional bead types are also available (in both bulk and prefilled kits). Please contact Benchmark for a complete listing.