

Animal Handling & Containment



NEW Polyamid Blend Small Animal Handling Gloves, see page C8



NEW Metabolic Chamber for Mice, see page C11



NEW Metabolic Cage for Rats and Mice, see page C14



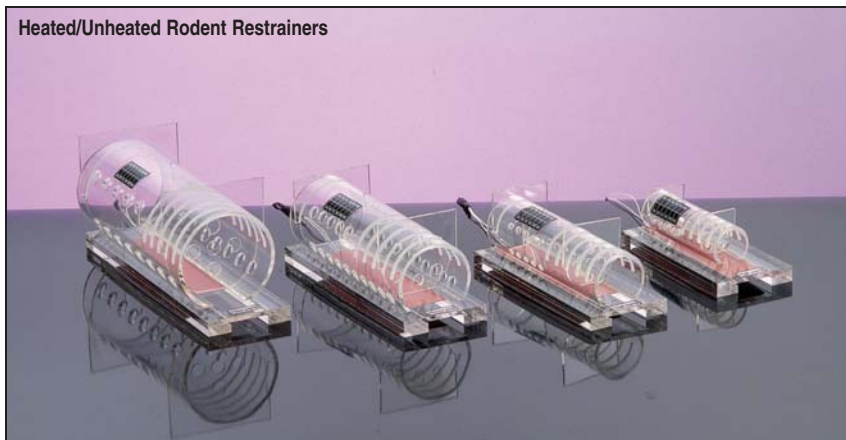
NEW Quick Mini Thickness Gauge, see page C16



NEW Mini Cord/Cordless Small Animal Trimmer, see page C20

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- NEW** • **Rodent Restraint Cones**.....see page C3
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Harvard Apparatus Heated/Unheated Rodent Restrainers



- Maintain blood flow to the tail
- Adjustable headgate and removable tailgate
- 4 sizes - for mice to 700 gram rats

This new line of restrainers is available in heated and unheated versions. They are made of clear acrylic and are not autoclavable.

The Restrainers are cylindrical and are mounted onto a flat sturdy base. They have a series of holes on each side to facilitate injections.

The length is adjustable by inserting a removable headgate into one of several slots.

The Heated Restrainers will maintain an animal at a constant temperature of 37.8°C (100°F). They are ideal for use when performing indirect rat tail blood pressure studies or when taking blood samples from the tail since the animals often shut down the blood circulation to their tails when the room temperature drops below 23.9°C (75°F) as part of a mechanism to maintain body temperature.

The Heated Restrainers have a heating strip with an integral sealed thermostat. The strip slides into the bottom of the Restrainer. The animal does not come into contact with the heater. A special unbreakable thermometer indicates the Restrainer temperature from 31° to 40°C (88° to 104°F).

The Heated Animal Restrainers are for 115/230 volt use and are supplied complete with Restrainer, Heating Pad and Thermometer. The Restrainers are also available in an unheated version.

Rodent Restrainer					
Heated Restrainers		Unheated Restrainer	Animal Weight Range	Restraining Height	Restraining Length (Min. x Max.)
115 VAC	220 VAC				
BS4 52-0315 \$	BS4 52-0295	BS4 52-0317	70 to 125 g (2.5 to 4.4 oz)	28.5 mm (1-1/8 in)	51 x 89 mm (2 x 3-1/2 in)
BS4 52-0311 \$	BS4 52-0299	BS4 52-0291	125 to 250 g (4.4 to 8.8 oz)	44.5 mm (1-3/4 in)	8.3 x 146 mm (3-1/4 x 5-3/4 in)
BS4 52-0313 \$	BS4 52-0297	BS4 52-0292	250 to 500 g (8.8 to 14 oz)	63.5 mm (2-1/2 in)	102 x 165 mm (4 x 6-1/2 in)
BS4 52-0314 \$	BS4 52-0298	BS4 52-0293	350 to 700 g (12.3 to 24-2/3 oz)	82.6 mm (3-1/4 in)	133 x 197 mm (5-1/4 x 7-9/10 in)

Restrainer Heaters

The restrainer heaters supplied with the restrainers shown to the left are also available separately and can be used with the Broome Restrainers shown on page 109. These restrainer heating systems feature a flexible heating strip with adhesive backing which can be mounted to the underside of any acrylate restrainer. The temperature is factory set to 37°C (adjustable from ambient to 95°C through the control unit). The system is composed of a heating strip, controller and AC adapter. The temperature set point is adjusted using a screwdriver to turn a recessed set screw on the control unit. The heating strips, controllers and AC adapters can also be purchased separately.

Catalog No.	\$	Product
BS4 50-0200		Restrainer Heater, Controller and AC Adapter, 115 VAC
BS4 50-0201		Restrainer Heater, Controller and AC Adapter, 220 VAC
BS4 50-0202		Restrainer Heater, Controller and AC Adapter, 230 VAC
BS4 50-0203		Restrainer Heater, Controller Only
BS4 590-1284		AC Adapter for Restrainer Controller, 115 VAC
BS4 590-1283		AC Adapter for Restrainer Controller, 220 VAC
BS4 590-1282		AC Adapter for Restrainer Controller, 230 VAC

Broome Rodent Restrainers



- Perfect for injections or blood sampling
- Entire tail is completely exposed for injections or sampling

These popular Broome Restrainers provide fast and easy animal insertion. The cylindrical design of these Restrainers solves the problem of the rodents turning once they are introduced into the Restraint.

To place the animal into the Restraint, loosen white Delrin nose piece and grasp the animal by the tail. Slide the animal into the Restraint by pulling its tail along the open groove until the animal is completely enclosed in the cylinder. Then slide the nose piece into the groove on the opposite side of the Restraint and place it up to the nose of the animal. Acrylic. Not autoclavable.

Broome Rodent Restrainers				
Catalog No.	\$	Animal Weight Range	Restraining Barrel ID	Length Min x Max
BS4 52-0460		15 to 30 g	25.4 mm	41 x 83 mm
BS4 52-0470		30 to 70 g	31.75 mm	50 x 100 mm
BS4 52-0478		70 to 125 g	38 mm	73 x 124 mm
BS4 52-0486		125 to 250 g	50.8 mm	70 x 178 mm
BS4 52-0494		250 to 500 g	63.5 mm	58 x 195 mm

Universal Rodent Restrainers



- Restrains mice down to 10 grams!
- Removable raised inner floor
- Adjustable headgate and removable tailgate
- Headgate fits into any of four positions for various sizes of rodents
- Tailgate allows maximum closeness of occluding cuff to body when testing indirect blood pressure

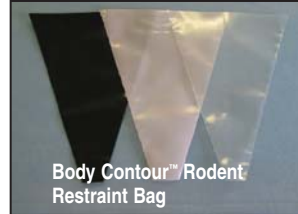
These Universal Rodent Restrainers have a unique raised inner floor which provides a better fit for smaller rodents and which may be removed for larger rodents. The inner floor is attached to the bottom by two nylon screws. Knurled, nickel-plated brass screws serve as base fasteners and legs. These Universal Rodent Restrainers are constructed of 6.4 mm (1/4 in) thick, rigid, clear acrylic plastic. Openings in the headgate reduce restrictions on the rodent's breathing. Not autoclavable.

Universal Rodent Restrainers				
Catalog No.	\$	Animal Weight Range	Restraining Area, H x L	
			Minimum	Maximum
BS4 56-4499		10 to 40 g (0.4 to 1.4 oz)	28.6 x 51 mm (1-1/8 x 2 in)	41.3 x 102 mm (1-5/8 x 4 in)
BS4 56-4500		150 to 300 g (5.3 to 10.6 oz)	41.3 x 124 mm (1-5/8 x 4-7/8 in)	54 x 171 mm (2-1/8 x 6-3/4 in)
BS4 56-4501		250 to 600 g (8.8 to 21.2 oz)	47.6 x 152 mm (1-7/8 x 6 in)	60.3 x 216 mm (2-3/8 x 8-1/2 in)

NEW Rodent Restraint Bags



Triangle Rodent Restraint Bag



Body Contour™ Rodent Restraint Bag

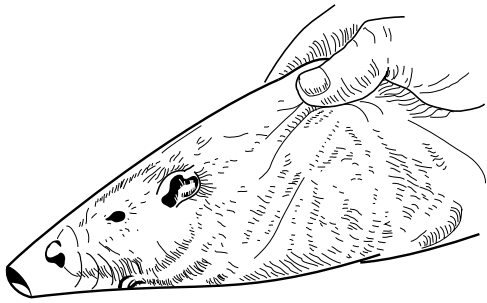
- Variety of sizes and shapes
- Multiple colors
- Safe, humane and disposable
- Includes twist ties to secure bags
- Multi-use

These Rodent Restraint Bags constructed of Easy-Flex-PE™ provide effortless wrapping and added animal comfort. Pre-cut sizing eliminates the need for cutting down larger bags for smaller animals, and the optional Body-Contour™ Cone shape provides easier animal capture and restraint and increased animal comfort. Optional Black and Rose color bags reduce natural light to provide an environment that aids in reducing animal agitation and stress. Restraint Bags can be used in a variety of procedures including tail tattooing and injections, IP injections, oral dosing and decapitation.

Rodent Restraint Bags				
Body-Contour™ Shape, pkg. of 40				
Clear Cat. No.	Black Cat. No.	Rose Cat. No.	Animal Size	Bag Size
BS4 72-6400 \$	BS4 72-6401	BS4 72-6402	Small	120 g
BS4 72-6403 \$	BS4 72-6404	BS4 72-6405	Medium	225 g
BS4 72-6406 \$	BS4 72-6407	BS4 72-6408	Large	450 g
Traditional Triangle Shape, pkg. of 50				
BS4 72-6409 \$	–	–	X-small	< 20 g
BS4 72-6410 \$	BS4 72-6411	BS4 72-6412	Small	120 g
BS4 72-6413 \$	BS4 72-6414	BS4 72-6415	Medium	225 g
BS4 72-6416 \$	BS4 72-6417	BS4 72-6418	Large	450 g

Restraint Devices

Rodent Restraint Cones



These clear polyfilm disposable Restraint Cones are an economical way to hold and restrain rodents. Place the animal into the Cone and close the large end. The animal breathes through an opening in the small end. Animal wastes are contained in the Cone. Deliver injections directly through the plastic. Restraint Cones can be reused. Sold in packages of 100.

Catalog No.	\$	Product
BS4 52-9586		Rodent Restraint Cones, pkg. of 100

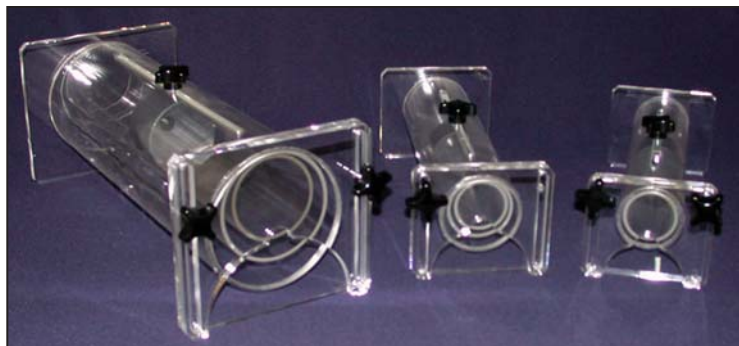
Rodent Injection Cone



This Injection Cone is useful for large quantity sampling where speed and efficiency are required. It is transparent, durable and easy-to-clean. Suction cup feet prevent the Cone from slipping on the work surface. The Cone opening is 10.2 cm (4 in) in diameter and is 14.6 cm (5-3/4 in) long. Restrains animals from 15 to 600 grams.

Catalog No.	\$	Product
BS4 59-6409		Rodent Injection Cone

NEW Tube Type Holder



Tube Type Holder						
Catalog No.	\$	Model	Weight Range	Outer Tube Diameter	No. of Inner Tubes	Diameter of Inner Tubes
BS4 34-0012		1.5.0	20 to 50 g	30 mm	1	24 mm
BS4 34-0007		1.4.0	150 to 300 g	57 mm	1	44 mm
BS4 34-0008		1.4.1	150 to 400 g	68 mm	2	57 mm, 44 mm
BS4 34-0009		1.4.2	300 to 500 g	94 mm	2	68 mm, 68 mm
BS4 34-0010		1.4.3	500+ g	121 mm	2	94 mm, 68 mm

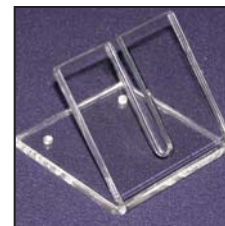
* Note: Replacement thumb screws available, please call.



Box Type Holder



Cone Type Holder



Angle Type Holder

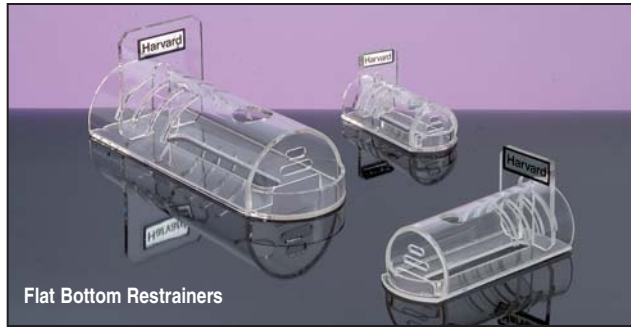
Catalog No.	\$	Model	Product
BS4 34-0029		1.13.1	Box Type Holder
BS4 34-0030		1.14.1	Cone Type Holder, Large
BS4 34-0031		1.14.2	Cone Type Holder, Small
BS4 34-0033		1.15.2	Angle Type Holder, Small

NEW Single Tube Holder With Access Holes

The single tube holder with access holes has been developed to improve access to various parts of the body whilst still restraining the animal. The single tube holder is available with internal tube diameters of 25 mm, 33 mm, 45 mm, 57 mm, 69 mm and 94 mm (lengths rising proportionately). Length can be adjusted by means of a cone inside the tube. Holes can be cut into the holder at any position to the size and shape of your choice. The single tube holder is made in Perspex and is flame polished. Each customer's design is given its own unique code for re-ordering purposes.

Catalog No.	\$	Model	Product
BS4 34-0011		1.4.6	Single Tube Holder with Access Holes

Flat Bottom Restrainers



Flat Bottom Restrainers

- Adjustable tail gate; fixed head gate
- Feeding pocket
- Bottom slot for easy access for injections

These Flat Bottom Restrainers have one circular opening on top and a slot on the bottom for easy intramuscular, intraperitoneal and intravenous injections and drainage of wastes. The adjustable tail gate fits in one of 4 slots, allowing the Restraint to accommodate different sized animals. The front of the Restraint has two slots for easy breathing and anesthetizing. The bottom extends past the front part of the Restraint forming a pocket for animal feeding.

Flat Bottom Restrainers				
Catalog No.	Animal Weight Range	Restraining Height	Restraining Length Minimum	Restraining Length Maximum
BS4 52-0882 \$	15 to 30 g (0.5 to 1.1 oz)	25.4 mm (1 in)	44.5 mm (1-3/4 in)	76.2 mm (3 in)
BS4 52-0890 \$	30 to 125 g (1.1 to 4.4 oz)	38.1 mm (1-1/2 in)	63.5 mm (2-1/2 in)	101.6 mm (4 in)
BS4 52-0908 \$	125 to 250 g (4.4 to 8.8 oz)	44.5 mm (1-3/4 in)	76.2 mm (3 in)	127 mm (5 in)
BS4 52-0916 \$	250 to 500 g (8.8 to 17.6 oz)	50.8 mm (2 in)	108 mm (4-1/4 in)	171.5 mm (6-3/4 in)

Fully Adjustable Acrylic Rabbit Restraint



Fully Adjustable Acrylic Rabbit Restrainers

- Extra long curved back plate with adjustable height
- For 3 to 7.5 kg (6.6 to 16.5 lb) rabbits

The back plate of this Restraint is divided into two separate adjustable pieces, a curved back plate and a rear plate, providing a perfect fit with no gaps. The back height is adjustable from a minimum of 11.4 cm (4-1/2 in) to a maximum of 17.8 cm (7 in) and is secured by tightening 4 knobs. The rear plate has an extra extension plate that can slide up to match the height of the back plate for securely restraining the animal.

Catalog No.	\$	Product
BS4 59-6947		Fully Adjustable Acrylic Rabbit Restraint

Small Animal Snuggle



Bunny Snuggle: Small BS4 72-0020, Medium BS4 72-0021 and Large BS4 72-0022

- Less stress than rigid restrainers
- Effective yet comfortable restraint
- Velcro fasteners for quick and easy application and removal
- Multiple flaps facilitate many restraint configurations for various procedures:
 - Blood collection
 - Vaginal samples
 - Veterinary exams
 - Gavage
 - Eye movement
 - Transportation

Introducing the safest form of small animal restraint to date, the Snuggle! Manufactured of flexible yet durable nylon coated canvas, the Snuggle is rugged enough for repeated laundering and reuse. It may be gas sterilized if desired. Wide flaps with Velcro fasteners provide maximum flexibility and ease of use allowing for a custom fit between individual subjects.

A fragile bone structure coupled with the high tendency of stress in small animals lends to the continuous risk of fractures with the use of traditional rigid restraints. Mechanical restraints also frequently require the involvement

of two personnel; one to restrain and one to perform the procedure. The resulting stress and discomfort for the rabbit can often jeopardize the efficiency of the procedure and consistency of results.

The Snuggle acts as a swaddling for an effective yet comfortable restraint, rather than a rigid structure for immobilization. The multiple flaps lend to many restraint configurations to provide access depending on the procedure. One handler can carry out both restraint and procedures easily with the Snuggle.

The Snuggle is available for rodents, guinea pigs and rabbits, order according to the weight range of the animals.

Catalog No.	\$	Product
BS4 72-0020		Bunny Snuggle, small, up to 3.5 kg
BS4 72-0021		Bunny Snuggle, medium, 3.0 kg to 5.0 kg
BS4 72-0022		Bunny Snuggle, large, 5.0 to 7.0 kg
BS4 72-6274		Bunny Snuggle, X-large, over 7.0 kg
BS4 72-6270		Guinea Pig Snuggle, small, up to 350 g
BS4 72-6271		Guinea Pig Snuggle, medium, 350 g to 600 g
BS4 72-6272		Guinea Pig Snuggle, large, 600 g to 750 g
BS4 72-6273		Guinea Pig Snuggle, X-large, over 750 g
BS4 72-6265		Rat Snuggle, X-small, 100 g to 150 g
BS4 72-6266		Rat Snuggle, small, 150 g to 250 g
BS4 72-6267		Rat Snuggle, medium, 250 g to 350 g
BS4 72-6268		Rat Snuggle, large, 350 g to 500 g
BS4 72-6269		Rat Snuggle, X-large, over 500 g

Restraint Devices

Acrylic Rabbit Restainers



BS4 52-0932 Acrylic Rabbit Restraint

- Curved back plate minimizes injury
- Adjustable vertical head restraint bars prevent rabbit from moving head from side-to-side during ophthalmological studies

These transparent acrylic Restraint devices have highly polished edges to prevent chaffing, especially at the neck. A durable, non-slip floor provides firm footing yet doesn't tear foot pads upon removal.

The neck plate is bisected horizontally. The top half of the neck plate vertically slides within slots and locks into place. The neck opening adjusts from 4.4 to 6.4 cm (1-3/4 to 2-1/2 in) diameter.

Two 19 cm (7-1/2 in) high, 2.9 cm (1-1/8 in) thick head restraint bars slide horizontally to restrain the head from 3.5 to 7.3 cm (1-3/8 to 2-7/8 in). They are secured by tightening two large knobs and are removable if needed.

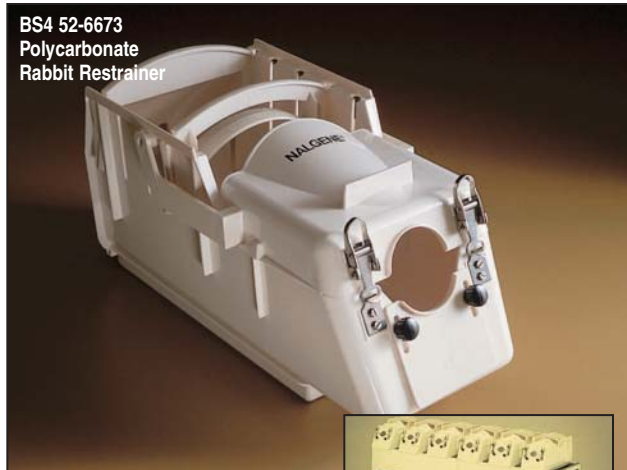
The sliding back plate has a 4.1 cm (1-5/8 in) access hole and is secured by tightening a nylon screw against the floor. Not autoclavable; sterilize chemically or wash up to 82°C (180°F).

The BS4 52-0924 Restraint is available in a Multiple Restraint Version. Select from two, four, six, or eight BS4 52-0924 Restraints bonded in row to a continuous piece of nonslip acrylic. The overall length for each Restraint is 45.7 cm (18 in).

Acrylic Rabbit Restraint				
Catalog No.	Weight Range	Restraining Width	Restraining Length	
			Minimum	Maximum
BS4 52-0924	Up to 4 kg (8.8 lb)	15.2 cm (6 in)	34 cm (13-1/2 in)	38 cm (15 in)
BS4 52-0932	4 to 7 kg (8.8 to 15.4 lb)	15.2 cm (6 in)	36.3 cm (14-1/4 in)	48.9 cm (19-1/4 in)

Catalog No.	\$	Product	Overall Width
BS4 59-6950		Multiple Rabbit Restraint, 2	34.3 cm (13-1/2 in)
BS4 59-6952		Multiple Rabbit Restraint, 4	67.3 cm (26-1/2 in)
BS4 59-6953		Multiple Rabbit Restraint, 6	100.3 cm (39-1/2 in)
BS4 59-6954		Multiple Rabbit Restraint, 8	133.4 cm (52-1/2 in)

Polycarbonate Rabbit Restraint



BS4 52-6673 Polycarbonate Rabbit Restraint

- Completely autoclavable Poly-carbonate with stainless steel parts
- Adjustable neck support, rear plate and unique top plate which protects rabbit's spine
- WARNING: This restraint is only for rabbits weighing from 3 to 4.5 kg (6-1/2 to 10 lb)



BS4 52-6681

The rabbit is secured as follows: Remove rear plate and top plate. Open hinged top and place rabbit inside. Each side of the Restraint has five 7.6 cm (3 in) slots separated by approximately 3.2 cm (1-1/4 in). Slide rear plate in appropriate slots for size

of animal. The rear plate has a slotted opening for pyrogen testing. Slide and lock in place curved 2.5 cm (1 in) wide top plate in appropriate slot over animal's back to prevent injury. Close the hinged top; latch the front of the Restraint.

Slide the neck plate up and secure by turning two black knobs to adjust the 5.8 cm (2-1/4 in) wide neck opening from a minimum of 5.1 cm (2 in) to a maximum height of 7.5 cm (3 in). To protect the animal's neck, install the polypropylene half neck collar (supplied) on the upper part of the neck opening. This further reduces the height of the neck opening to 4.1 cm (1.6 in). The minimum restraining length is approximately 23 cm (9 in) and the maximum restraining length is 38 cm (15 in).

The base has a 26.7 x 10.8 cm (10-1/2 x 4-1/4 in) stainless steel floor grid insert with inverted 'U' shaped bars for paw comfort and firm footing. Animal wastes drop into either the 12.7 x 29.8 cm (5 x 11-3/4 in) plastic tray provided or tray in Six-Cage Stand, see below.

Catalog No.	\$	Product
BS4 52-6673		Polycarbonate Rabbit Restraint
BS4 52-6681		Six-Cage Stand for up to six BS4 52-6673 Restraints (not included); a front shelf holds instruments; front casters lock for added security; H x W x D, 91 x 150 x 94 cm (36 x 59 x 37 in); 22.7 kg (50 lb)

Elizabethan Collars



- Prevents animals from grooming and dislodging implants saving time and money
- Easily adjustable to properly fit different animals
- Tried and true – thousands in use today

These low density polyethylene Elizabethan Collars are both tough for durability and soft and pliable enabling the animal to eat, drink, and move about comfortably. The neck opening is padded with soft vinyl foam.

Three types are available:

1. Lightweight, 0.5 mm (0.020 in) thick Collars for rodents with Velcro closure
2. Lightweight, 0.5 mm (0.020 in) thick Collars for rabbits with one row of snap fasteners
3. Standard, 1.5 mm (0.060 in) thick Collars for rabbits, cats, and dogs with two rows of snap fasteners

The Lightweight Collars with Velcro closure for rodents allow the Collar to be snugly adjusted. (Not suitable for Mice, see below.) The Lightweight Collars for rabbits have one row of 3 rustproof snap fasteners mounted halfway between the inner and outer edge of the Collar. These fasteners provide adjustment of the neck opening.

The Standard Collars for rabbits, cats and dogs have 6 rustproof snap fasteners, 3 mounted on the inner edge and 3 on the outer edge of the collar, to adjust the neck opening. Select a collar based on the animals neck circumference and desired collar width. Ordering information for all Collars is to the right.



- Specially designed for mice

Mouse Elizabethan Collar

Designed specifically for the mouse, this collar is low-density, light-weight polyethylene. The neck is bound with cotton jersey material for added comfort. Velcro fasteners ensure full adjustment.

Elizabethan Collar			
Catalog No.	Neck Circumference	Collar Width	Weight
Lightweight Collars with Velcro Closure for Rodents			
BS4 59-6412 \$	5.7 to 7.6 cm (2-1/4 to 3 in)	3.2 cm (21-1/4 in)	5.7 g (0.2 oz)
BS4 59-6413 \$	5.7 to 7.6 cm (2-1/4 to 3 in)	3.8 cm (1-1/8 in)	7.0 g (1/4 oz)
BS4 59-6414 \$	7.6 to 10.2 cm (3 to 4 in)	3.5 cm (1-3/8 in)	7.0 g (1/4 oz)
Lightweight Collars with Snap Fasteners for Rabbits			
BS4 59-6427 \$	5.7 to 7.6 cm (2-1/4 to 3 in)	5.7 cm (2-1/4 in)	14.2 g (1/2 oz)
BS4 59-6428 \$	7.6 to 10.2 cm (3 to 4 in)	5.4 cm (2-1/8 in)	14.2 g (1/2 oz)
BS4 59-6429 \$	7.6 to 10.2 cm (3 to 4 in)	7.9 cm (3-1/8 in)	21.3 g (3/4 oz)
BS4 59-6430 \$	10.2 to 13.3 cm (4 to 5-1/4 in)	7.3 cm (2-7/8 in)	21.3 g (3/4 oz)
BS4 59-6431 \$	10.2 to 13.3 cm (4 to 5-1/4 in)	9.8 cm (3-7/8 in)	35.4 g (1-1/4 oz)
BS4 59-6432 \$	11.4 to 15.9 cm (4-1/2 to 6-1/4 in)	8.9 cm (3-1/2 in)	35.4 g (1-1/4 oz)
BS4 59-6433 \$	11.4 to 15.9 cm (4-1/2 to 6-1/4 in)	11.1 cm (4-3/8 in)	42.5 g (37.7 in)
BS4 59-6434 \$	15.9 to 23.5 cm (6-1/4 to 9-1/4 in)	10.5 cm (4-1/8 in)	42.5 g (1-1/2 oz)
Standard Collars with Snap Fasteners for Rabbits/Cats/Dogs			
BS4 59-6416 \$	11.4 to 15.9 cm (4-1/2 to 6-1/4 in)	11.1 cm (4-3/8 in)	113.4 g (4 oz)
BS4 59-6417 \$	15.9 to 23.5 cm (6-1/4 to 9-1/4 in)	10.5 cm (4-1/8 in)	99.2 g (3-1/2 oz)
BS4 59-6418 \$	15.9 to 23.5 cm (6-1/4 to 9-1/4 in)	14.3 cm (5-5/8 in)	164.4 g (5.8 oz)
BS4 59-6419 \$	15.9 to 23.5 cm (6-1/4 to 9-1/4 in)	18.1 cm (7-1/8 in)	226.8 g (8 oz)
BS4 59-6420 \$	23.5 to 31.6 cm (9-1/4 to 12-1/2 in)	15.9 cm (6-1/4 in)	212.6 g (7-1/2 oz)
BS4 59-6421 \$	23.5 to 31.6 cm (9-1/4 to 12-1/2 in)	23.8 cm (9-3/8 in)	391.2 g (13.8 oz)
BS4 59-6422 \$	27.9 to 39.4 cm (11 to 15-1/2 in)	23.2 cm (9-1/8 in)	385.6 g (13.6 oz)
BS4 59-6423 \$	27.9 to 39.4 cm (11 to 15-1/2 in)	30.8 cm (12-1/8 in)	618 g (21.8 oz)
BS4 59-6424 \$	35.6 to 47.6 cm (14 to 18-3/4 in)	29.4 cm (11-9/16 in)	595.3 g (21 oz)
BS4 59-6425 \$	35.6 to 47.6 cm (14 to 18-3/4 in)	36.5 cm (14-3/8 in)	822.1 g (29 oz)
BS4 59-6426 \$	55.2 to 63.5 mm (21-3/4 to 25 in)	32.4 cm (12-3/4 in)	827.8 g (29.2 oz)

Catalog No.	\$	Product
BS4 72-0056		Mouse Elizabethan Collar

Restraint Devices

Bite Not® Collars



BS4 61-0229
Bite Not®
Collar for Cats

- More comfortable than Elizabethan collars
- Less restrictive to the animal's natural behavior so animal stays calmer

Introducing the first alternative to the Elizabethan collar that's a comfort to wear. These new Bite Not® collars are a revolutionary product that allow dogs and cats to eat, drink, sleep and play comfortably. Peripheral vision is unimpeded so dogs and cats are calmer and happier.

The Bite Not® Collar wraps snugly around the animal's neck and should be wide enough to extend from behind the ear to the top of the shoulder. These collars protect the back, rump, base of the tail, flanks, chest, abdomen, genitals and even the feet (not recommended for protecting the eyes or ears). They are made of flexible, polyethylene plastic covered in foam on one side for comfort and to prevent slippage. They are secured by Velcro® strips along the edges and have an elastic wraparound strap.

Bite Not® Collar			
Cat. No.	\$	Collar Size	Weight of Animal W x L
BS4 61-0224		Dog, size 1	Under 10 lbs 3.5 x 16 in
BS4 61-0225		Dog, size 2	10 to 17 lbs 4 x 18 in
BS4 61-0226		Dog, size 3	18 to 30 lbs 5 x 21 in
BS4 61-0231		Dog, size 3	31 to 45 lbs 5 x 24 in
BS4 61-0232		Dog, size 4	46 to 70 lbs 6 x 27 in
BS4 61-0227		Dog, size 5	71 to 100 lbs 7 x 28 in
BS4 61-0228		Dog, size 6	101 to 140 lbs 8 x 32 in
BS4 61-0229		Cat, size sm	under 10 lbs 2.5 x 14 in
BS4 61-0230		Cat, size lg	over 10 lbs 3 x 15 in

* Note: The bottom of the collar must touch the animal's shoulder joint for maximum protection. For proper sizing measure from the back of the ear to the shoulder joint and select the collar with a corresponding width.

Cervical Collars



Cervical Collars for
Cats and Dogs

- For canines and cats
- Similar in function to Elizabethan Collars but more effective for housing space

These Cervical Collars restrict the movement of the animal's head from side-to-side while permitting downward motion for feeding. These pliable Collars are made from low density polyethylene with light padding around the edges to soften the contours.

Available with a choice of widths to accommodate different neck heights. The Velcro strip provides continuous adjustment to securely fit the neck.

Cervical Collar			
Animal	Size	Collar Width	Circumference*
Canines			
BS4 59-9194	Sml	8.25 cm (3-1/4 in)	31.8 cm (12-1/2 in)
BS4 59-9195	Med	9.5 cm (3-3/4 in)	35.6 cm (14 in)
BS4 59-9196	Lge	12.7 cm (5 in)	38.1 cm (15 in)
Cats			
BS4 59-9197	Sml	3.2 cm (1-1/4 in)	12.7 cm (5 in)
BS4 59-9198	Med	3.8 cm (1-1/2 in)	14.0 cm (5-1/2 in)
BS4 59-9199	Lge	4.4 cm (1-3/4 in)	15.2 cm (6 in)

* Note: Other Collar circumferences available upon request.

NEW Polyamid Blend Small Animal Handling Gloves



- Spun ceramic provides extra protection from slashing and tearing
- Elastic wrist band allows for an accurate, comfortable and safe fit.

These Small Animal Handling Gloves are a unique and innovative integration of comfort and technology. Spun ceramic material offers three times more slash resistance than Kevlar. These gloves are designed and fabricated for flexibility, accurate touch control, comfort and safety during long periods of wear. They are light weight yet strong and comfortable to safeguard personnel while handling animals.

Catalog No.	\$	Product
BS4 72-6275		Polyamid Blend Glove, Small Pair
BS4 72-6276		Polyamid Blend Glove, Large Pair

NEW Pillow Collars



These Pillow Collars are designed for a wide range of applications in both dogs and rabbits. They are manufactured from an extremely durable "ballistic" canvas fabric with a foam pillow inside the casing. These Collars are available for use with dogs and rabbits in either black or white. For complete details and ordering information see page B14.

Triple-Strength Gloves and Arm Guards



BS4 52-6798
Triple-Strength
Gloves

- Improved cut resistance
- Comfortable and lightweight
- Unmatched durability
- Not puncture proof

These Gloves and Arm Guards provide excellent protection, less weight and greater dexterity. They are seamless and are knit from a yarn that has a central core of stainless steel wire covered in Kevlar (the material used in bullet proof vests). An additional layer of Spectra nylon increases strength, comfort and durability, while decreasing skin chafing. They are not puncture proof, but are highly cut-resistant. They are machine washable.

These five-finger Gloves have a snug, 7.5 cm (3 in) cuff for protection. They are offered in three sizes and are sold in pairs.

The Triple-Strength Arm Guards offer additional protection for the wrist and arm. These Arm Guards have a fast clip at the end of the sleeve that secures the top of the Arm Guard and three inches of stitching opened at the upper arm to facilitate bicep flexing and movement. The Arm Guards are offered in two lengths and are sold individually.

Wear these gloves over a pair of leather gloves for the utmost protection.

Catalog No.	\$	Product
BS4 52-6780		Small Pair
BS4 52-6798		Medium Pair
BS4 52-6806		Large Pair

Stainless Steel Mesh Gloves



Stainless Steel
Mesh Gloves

- Secure fit with full mobility; autoclavable
- Cut proof
- Puncture proof to 1/8 inch

These five-finger Stainless Steel Mesh Gloves offer protection against animal bites and knife cuts. Sharp teeth longer than 3.2 mm (1/8 in) will penetrate the Glove. Constructed from individually welded stainless steel links, these Gloves are extremely rugged and durable while

allowing full mobility of the hand and wrist. The Gloves are secured by quick-releasing velcro straps. These straps can be removed for autoclaving, or the entire Glove may be cleansed with soap and water.

These Gloves are offered in two styles. The first style has a single velcro strap at the wrist. The second style has an additional velcro strap and a 6.5 cm (2-1/2 in) safety cuff for added wrist protection. Both styles are available in left- and right-handed versions and in men's and women's sizes. They are sold individually.

Stainless Steel Mesh Glove						
Glove Style	Glove Size					
	Small	\$	Medium	\$	Large	\$
Without Safety Cuff						
Men's Right Hand	BS4 52-9818		BS4 52-9826		BS4 52-9834	
Men's Left Hand	BS4 52-9859		BS4 52-9867		BS4 52-9875	
Women's Right Hand	BS4 52-9909		BS4 52-9917		BS4 52-9925	
Women's Left Hand	BS4 52-9933		BS4 52-9941		BS4 52-9958	
With Safety Cuff						
Men's Right Hand	BS4 52-1807		BS4 52-1815		BS4 52-1823	
Men's Left Hand	BS4 52-1849		BS4 52-1856		BS4 52-1864	
Women's Right Hand	BS4 52-9602		BS4 52-9610		BS4 52-9628	
Women's Left Hand	BS4 52-9636		BS4 52-9644		BS4 52-9651	

For Nitrile and Latex Gloves, see pages D51 to D54 in the Surgical Equipment section.

Animal Handling Gloves

All-Purpose Leather Gloves



BS4 52-5121 All-Purpose Leather Gloves

These five-finger Gloves offer hand and wrist protection for general laboratory work. They are made of heat treated shoulder leather. Supplied with cotton liner. They are extremely durable being fully welted with a thumbstrap reinforcement. A 15 cm (6 in) cuff of split steerhide and double thickness offers greater protection. They are available in one size and are sold in pairs.

Catalog No.	\$	Product
BS4 52-5121		All-Purpose Leather Gloves, pair

Small Animal Handling Leather Gloves



BS4 60-5280 Small Animal Handling Gloves

These Gloves protect the user when handling small laboratory animals. Constructed of split steerhide, they are five-finger Gloves with a short cuff. The thumb and first three fingers are reinforced with leather, both front and back, and are stitched on the outside for maximum comfort and protection. They are available in six sizes and are sold in pairs.

Catalog No.	\$	Glove Size
BS4 60-5275		Women's Small, pair
BS4 60-5276		Women's Medium, pair
BS4 60-5277		Women's Large, pair
BS4 60-5278		Men's Small, pair
BS4 60-5279		Men's Medium, pair
BS4 60-5280		Men's Large, pair

Primate Handling Leather Gloves with Kevlar Lining



- Largest range of sizes of animal handling gloves
- Kevlar lining provides unparalleled protection against punctures

These 100% full grain cowhide Gloves have split grain cuffs that are 25.5 cm (10 in) long. These rugged Gloves are available in five sizes either with or without the Kevlar lining. They are provided in pairs. Full grain leather Snap-On Over Gloves are available separately and easily attach to the glove via sturdy snaps. These Over Gloves provide a second layer of leather over the thumb and index finger for additional protection when working with primates.

Glove Size	With Kevlar Lining		Without Kevlar Lining		Snap-On Over Glove	
		\$		\$		\$
Small	BS4 72-4016		BS4 72-4020		BS4 72-4024	
Medium	BS4 72-4017		BS4 72-4021		BS4 72-4025	
Large	BS4 59-9186		BS4 59-9187		BS4 59-9188	
X-Large	BS4 72-4018		BS4 72-4022		BS4 72-4026	
XX-Large	BS4 72-4019		BS4 72-4023		BS4 72-4027	

Small Animal Handling Deerskin Gloves



NEW

- Deerskin leather, thin yet strong and durable
- Lined with Kevlar for slash resistance
- Adjustable Velcro wrist strap
- Soft and form fitting will not crack or harden after wetting

These Small Animal Handling Deerskin Gloves offer a smart solution for protection during long periods of wear. When handling small animals, dexterity coupled with protection is vital for the security of both the subject and handler. Manufactured from a soft yet durable deerskin, these gloves are adjustable for a secure and comfortable fit and lined with knitted Kevlar to provide extra protection and slash resistance.

Catalog No.	\$	Product
BS4 72-6277		Deerskin Gloves, Small Pair
BS4 72-6278		Deerskin Gloves, Medium Pair
BS4 72-6279		Deerskin Gloves, Large Pair
BS4 72-6280		Deerskin Gloves, X-Large Pair

NEW Mouse Metabolic Chamber



- Designed to house individual mice
- Accurately separates urine from feces
- Conforms to code for Isolator Units
- Suitable for use in barrier facilities
- Constructed from high impact resistant acrylic
- Urine/feces separation cone is stainless steel
- Lid holds disposable air filter pad
- All connections are sealed with O-rings
- Urine vessel is removable and disposable
- Particularly useful with transgenic mice

The Metabolic Chamber for Mice is designed to house individual mice for 24 hour periods or longer for the purpose of studying the animal's metabolic function or effects of intervention on the animal's metabolism. These include, but are not limited to, daily food and water intake, effects of different drug therapies, urinary protein excretion and renal function studies. This Chamber is specifically designed to accurately separate urine from feces for analysis. The chamber is an isolator unit that conforms to the housing specifications in the Guide for the Care and Use of Laboratory Animals.

The Chamber is constructed of gas sterilizable acrylic and all connections are sealed with O-rings. The lid holds a disposable air filter pad. The urine/feces separation cone is stainless steel as are the floor and filter screens. The urine collection vessel is removable and disposable. The chamber is therefore suitable for use in barrier facilities. These chambers are actively used in research projects which have been reported in presentations at national scientific meetings. The chambers have proven to be particularly useful for research involving transgenic mice which must be housed individually for phenotyping and metabolic studies.

BS4 72-7060 Metabolic Chamber is Supplied With:

BS4 72-7061	Stainless Steel Funnel Assembly
BS4 72-7062	Stainless Steel Screen Floor
BS4 72-7063	Assembly Cage Lid
BS4 72-7064	Acrylic Food Holder Assembly
BS4 72-7065	Acrylic Water Bottle Assembly
BS4 72-7066	Urine Collection Vessel

Catalog No. \$ Product

BS4 72-7060	Metabolic Chamber for Mice*
BS4 72-7067	Replacement Water Bottle for Mouse Metabolic Chamber
BS4 72-7068	Replacement O-Ring Set for Mouse Metabolic Chamber

Publications

1. Flemming ER, Athirakul K, Oliverio MI, Key M, Goulet J, Koller BH, Coffman TM. Urinary concentrating function in mice lacking EP3 receptors for prostaglandin E2. *Am J Physiol* 1998; 275:F955-61.
2. Oliverio MI, Delnomdedieu M, Best CF, Li P, Morris M, Callaban MF, Johnson GA, Smithies O, Coffman TM. Abnormal water metabolism in mice lacking the type 1A receptor for angiotensin II. *Am J Physiol (Renal Physiology)* 2000; 278:F75-82.
3. Oliverio MI, Best CF, Smithies O, Coffman TM. Regulation of sodium balance and blood pressure by the AT1A receptor for angiotensin II. *Hypertension* 2000; 35:550-4.
4. Pace AJ, Lee E, Athirakul K, Coffman TM, O'Brien DA, Koller BH. Failure of spermatogenesis in mouse lines deficient in the Na⁺-K⁺-2Cl⁻ cotransporter. *J Clin Invest* 2000; 105:441-50.
5. Athirakul K, Kim H-S, Audoly LP, Smithies O, Coffman TM. Deficiency of COX-1 causes natriuresis and enhanced sensitivity to ACE inhibition. *In Press, Kidney Int.*

*Note: The above listed publications reference a "specially constructed" metabolic cage. This cage is the Metabolic Chamber for Mice listed above.

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NEW Mouse Metabolic Chamber Rack



- Holds up to 15 Metabolic Chambers
- Easy assembly
- All aluminum construction
- Non-skid leveling adjusters
- Durable baked powder epoxy finish
- Zinc plated assembly hardware
- Optional stainless steel hardware
- Optional swivel casters with swivel locks and wheel brakes

The Metabolic Chamber Rack is designed to hold up to 15 individual Metabolic Chambers for Mice. The unique design allows easy insertion and removal of the cages by placing each chamber through a large diameter hole in the

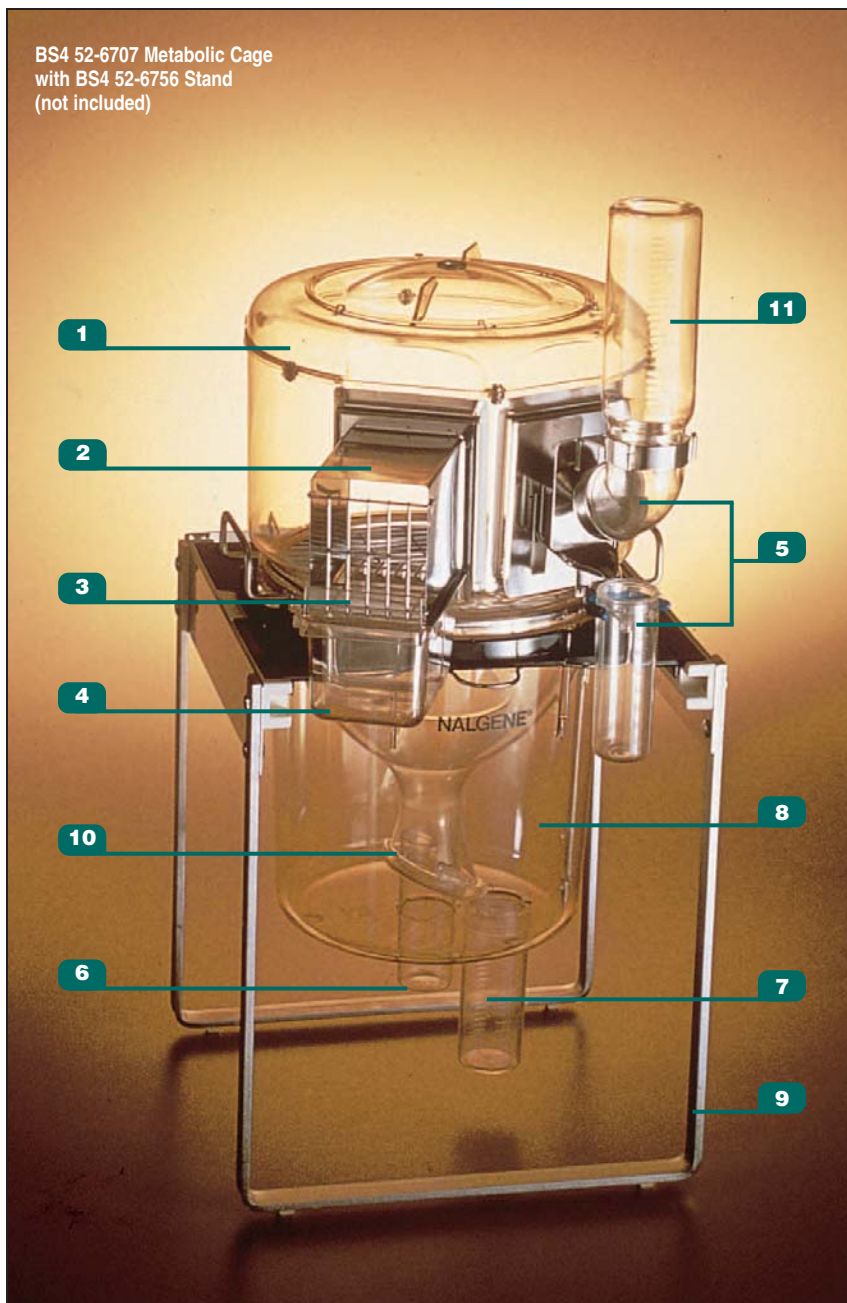
rack shelf. The base of the chamber is supported by a solid shelf. The solid base support shelf incorporates a safety plate with large diameter openings to also accept the chamber base. This design feature provides stability for the chambers with out requiring any complicated holding devices or clamping mechanisms. The chambers are simply inserted or removed from the rack as easily as placing a peg in a hole.

Catalog No. \$ Product

BS4 72-7071	Metabolic Chamber Rack (without casters)
BS4 72-7072	Metabolic Chamber Rack (with swivel casters)

Metabolic Cages for Rodents

BS4 52-6707 Metabolic Cage
with BS4 52-6756 Stand
(not included)



- Provide uncontaminated, reliable samples for accurate metabolic monitoring
- Unique funnel-and-cone design completely and immediately separates feces and urine into tubes outside the Cage
- Available in four sizes to accommodate mice, rats and other rodents of various weights
- Autoclavable

These Metabolic Cages prevent urine from washing over and entering the feces tube. Each excreta tube can be removed without disturbing the animal. Feed and water systems allow the animal's intake to be easily measured and are located outside the Cage to prevent spillage from contaminating the excreta. All Cage components are autoclavable.

Both the Small Rodent and Large Rodent Cages require the BS4 52-6756 Single Cage Stand.

1. **Cover:** Large, vented cover keeps animal securely contained. Removable for easy access.
2. **Upper Chamber:** Made of transparent polycarbonate. Surface is smooth, gnaw-proof and noiseless. Easily cleaned with warm soapy water.
3. **Feeder Chamber:** Located outside Cage. Size discourages rodent from nesting or sleeping inside.
4. **Feeder Drawer:** Polycarbonate drawer slides out for easy filling without disturbing the animal. Ideal for slurries, liquids or powders. Not designed for food in pellet form. Rear portion helps to catch spilled food to prevent contamination of feces.
5. **Water Bottle Support & Spillage Collection Tube:** Designed to prevent water from entering the Cage and contaminating the urine. Calibrated spill tube facilitates measurement of the actual water intake.
6. **Feces Collection Tube:** Non-wetting polymethylpentene. Pellets roll down the sides of the funnel and are collected in the tube. Unlocks from outside the Cage, with a single twist, without disturbing the animal.
7. **Urine Collection Tube:** Non-wetting polymethylpentene. Urine flows along the inside of the collection funnel and is directed by the urine ring into the urine tube. Graduated in cubic centimeters. Unlocks from outside the Cage without disturbing the animal.
8. **Lower Chamber:** Polycarbonate; can be removed without disturbing the animal; easily cleaned.
9. **Stand:** A stand or rack must be used with each Rodent Metabolic Cage. The BS4 52-6756 stainless steel Single Cage Stand (pictured) supports one Cage and provides easy access to all parts.
10. **Collection Funnel and Separating Cone:** Unique design and non-wetting polymethylpentene ensure immediate and complete separation of feces and urine.
11. **Water Bottle:** Polycarbonate, calibrated, with stainless steel cap and sipper tube; 100 ml bottle for Metabolic Cages for Small Rodents; 250 ml bottle for Metabolic Cage for Large Rodents.

Metabolic Cage for Large Rodents

- For rodents weighing from 300 to 850 grams

This Cage is for rats, guinea pigs, and hamsters weighing from 300 to 850 grams. It includes the same fluid collection tubes and rings as the Metabolic Cages for Small Rodents, see left. In addition, the upper chamber, water bottle and support, feeder assembly and urine collection tube are sized for large rodents.

The Large Rodent Metabolic Cage is extremely versatile. It can be adapted to house smaller rodents by adding the BS4 52-6819 Adapter Gate, see below, plus either the BS4 52-6815 Mouse Kit, BS4 52-6817 Feeder Assembly for Rats under 150 g or BS4 52-6818 Feeder Assembly for Rats 150 to 300 g, see below.

Specifications

Dimensions, H x W x D 52 x 28 x 36 cm (20-1/2 x 11 x 14 in)

Domicile Portion, ID x H 24 x 18 cm (9-1/2 x 7 in)

Area 450 cm² (70 in²)

Catalog No.	\$	Product
BS4 52-6707		Metabolic Cage for Large Rodents

Accessories and Spares

Replacement Feeder Chamber and Drawer. These Assemblies include a polycarbonate feeder drawer and stainless steel feeder chamber; all three sizes fit the Metabolic Cages for Small Rodents; for use with the BS4 52-6707 Large Rodent Metabolic Cage, it is necessary to add the BS4 52-6819 Adapter Gate, see to the right.

BS4 52-6816		For Mice: 2.4 cm (1 in) feeder opening
BS4 52-6817		For Rats: < 150 g, 3.5 cm (1-3/8 in) feeder opening
BS4 52-6818		For Rats: 150 to 300 g, 5 cm (2 in) feeder opening
BS4 52-6815		Mouse Kit. Includes BS4 52-6816 Mouse Feeder Assembly, mouse-sized grid and two mouse-sized urine tubes. Converts BS4 52-6723 Metabolic Cage for Rats < 150 g and BS4 52-6715 Metabolic Cage for Rats 150 to 300 g to a Metabolic Cage for Mice
BS4 52-6819		Replacement Adapter Gate. Allows smaller rodents to be housed in the BS4 52-6707 Metabolic Cage for Large Rodents; the Adapter Gate is a standard part of that Cage and is available separately here; when the Gate is placed in the opening for the Cage's feeder chamber or water bottle, a smaller feeder or water bottle support can be substituted; stainless steel
BS4 52-6820		Replacement Angle Adapter. Replacement part for the water bottle supplied with BS4 52-6707 Metabolic Cage for Large Rodents and BS4 56-0573 Metabolic Cage for Rabbits; autoclavable; transparent
BS4 60-1932		Diuresis Cage Adapter Kit for Mice. Converts any Metabolic Cage for Rodents into a diuresis cage for mice; includes funnel, short lower chamber and stainless steel screen

Metabolic & Diuresis Cages for Small Rodents

- For rodents less than 300 grams

The three Rodent Metabolic Cages are for rodents weighing less than 300 grams. All are identical in size but are supplied with different components for different sized rodents.

These Metabolic Cages include four fluid collection tubes with funnels (two water spillage tubes and two urine collection tubes), two feces collection tubes, two urine rings and a feeder chamber and drawer sized for the animal specified. The Cage for Mice also has mouse-size support grid and urine collection tubes. The Diuresis Cage for Mice is identical in size to the Metabolic Cages but has a smaller separating cone and collection funnel to minimize evaporation. It is used to collect by-products from a single mouse.

Specifications

Dimensions, H x W x D 48 x 28 x 36 cm (19 x 11 x 14 in)

Domicile Portion, ID x H 20 x 14 cm (8 x 5-1/2 in)

Area 320 cm² (50 in²)

Catalog No.	\$	Product
BS4 52-6731		Metabolic Cage for Mice
BS4 52-6723		Metabolic Cage for Rats < 150 g
BS4 52-6715		Metabolic Cage for Rats 150 to 300 g
BS4 60-1931		Diuresis Cage for Mice
BS4 52-6756		Single Cage Stand, measures 34 x 31 x 31 cm (13-1/4 x 12-1/2 x 12-1/2 in) (Fits all of the Small Rodent Cages listed above - See picture on facing page)

Oxystreamer®



See the Cell Biology Section M of this catalog for complete details.

- Provides two identical streams of any mix of O₂ and CO₂ gas
- Full range real-time control of both gases
- Simultaneous control of both gas and liquid phases, useful for live cell microscopy
- Easily switch from one gas concentration to another
- Eliminates the inflexibility and high cost of premixed gas, and inaccuracies due to gas stratification in premixed gas tanks
- Vertical footprint saves bench space

Catalog No.	\$	Product
BS4 64-0382		Dual Stream Oxygen and Carbon Dioxide Controller 0 to 5 L/min
BS4 64-0383		Dual Stream Oxygen and Carbon Dioxide Controller 0 to 10 mL/min

Metabolic Equipment

NEW Metabolic Cage for Rats and Mice



- Available for Mice or Rats
- Supplied with many components
- For use with Metabolism Cage Rack, see to the right

This Metabolic Cage for Rats enables collection of behavioral information, blood, urine and feces when part of the Culex animal handling system, or it can be used alone strictly for metabolism studies to collect urine and feces. It is likewise an ideal cage for continuous infusion studies for toxicology or metabolism studies or both. This is a “replacement part” or add-on for those wanting extra clean cages on hand to cycle through their experimental protocols.

The Metabolic Rat Cage can be used on the basic Metabolism Stand, offered to the right. Each Cage is supplied as a complete kit. A stand must be purchased separately.

The Metabolic Cage for Rats comes complete with the following components:

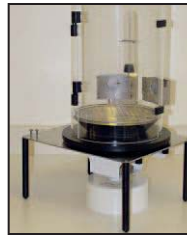
- BS4 72-6970 Metabolic Rat Cage
- BS4 72-6971 Stainless Steel Food Dish
- BS4 72-6972 Rat Feces Fetcher (Stainless Steel Mesh Basket)
- BS4 72-6973 Pyrex Rat Urinal
- BS4 72-6974 1-Cup Reusable Chilling Chamber for Scintillation Vials
- BS4 72-6928 Rat Water Tube
- BS4 72-6975 Stainless Steel Rat Funnel
- BS4 72-6976 Metabolic Rat Cage Lid
- BS4 72-6977 Food Dispenser Block Off Plate for Rat Metabolic Cage

The Metabolic Cage for Mice comes complete with the following components:

- BS4 72-6978 Metabolic Mouse Cage
- BS4 72-6979 Mouse Water/Food Tube
- BS4 72-6980 Mouse Feces Fetcher (Stainless Steel Mesh Basket)
- BS4 72-6981 Pyrex Mouse Urinal
- BS4 72-6974 1-Cup Reusable Chilling Chamber for Scintillation Vials
- BS4 72-6982 Stainless Steel Coated Mouse Funnel
- BS4 72-6983 Mouse Metabolic Cage Lid
- BS4 72-6984 Screen Floor for Metabolic Mouse Cage
- BS4 72-6985 Mouse Tether Line with Mounting Bracket, Wire, Flags & Collar Lock for Culex ABS & New Return (1/4 inch (6.5 mm) Bore Sensor)

Catalog No.	\$	Product
BS4 72-6967		Complete Metabolic Cage for Rats
BS4 72-6968		Complete Metabolic Mouse Cage Kit

NEW Metabolism Cage Stand



- For use with metabolic cage for rats or metabolic cage for mice, see to left
- Simple stand allows collection of urine and feces
- Economical

Both the Mouse and Rat Metabolism Cages can use this stand. It does not require use of a Return mechanism. This enables the cages to be used purely for urine and feces collection without tying up expensive apparatus, requiring any computer or other expensive blood or dialysis sampling equipment.

Catalog No.	\$	Product
BS4 72-6969		Metabolism Cage Stand (Cage must be purchased separately)

NEW **IMS Cage Cleaning Station (MK. II)**



- NEW! MK. II Version with Stainless Steel Trolley Base and Polycarbonate Cabinet

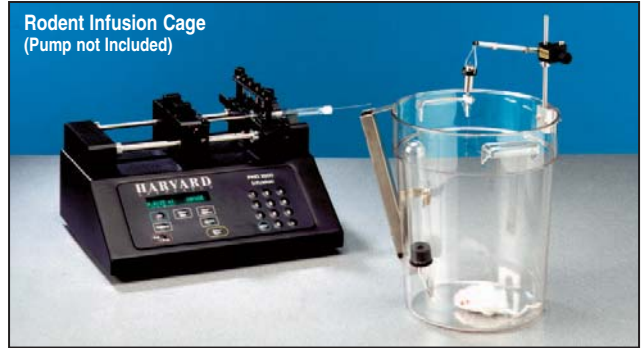
Designed specifically to meet COSHH regulations for a safe working environment. During cage cleaning the workstation controls allergens at source by scavenging air from around the work area and filtering it very efficiently.

Specifications

Trolley Base	Working surface 610 x 920 mm, Height 775 mm from floor
Overall Height	Including trolley, cabinet, filter and motor housing is 1970 mm, cabinet H x W x D, 667 x 800 x 600 mm
Bag Opening	Choice of 600 x 300 mm or 300 x 300 mm, each having a slide-in bag holding device
Filters	All filters are tested in accordance with BS 6540. Pre-Filter - Arrestance: The amount of particulate 5 microns and above, expressed as a percentage that the filter will extract from the air stream is 92%. HEPA Filter - Efficiency: The amount of dust staining particulate expressed as a percentage of particle size down to 0.12 microns that the filter will extract from the air stream is 99.97% (As determined by the Sodium Flame Test)
Air Flow	Approximately 0.7 M/second with clean filters

Catalog No.	\$	Model	Product
BS4 34-0922		3.6.0	IMS Cage Cleaning Station with 600 x 300 mm Bag Opening, 115V
BS4 34-0062		3.6.0	IMS Cage Cleaning Station with 600 x 300 mm Bag Opening, 230V
BS4 34-0923		3.6.3	IMS Cage Cleaning Station with 300 x 300 mm Bag Opening, 115V
BS4 34-0064		3.6.3	IMS Cage Cleaning Station with 300 x 300 mm Bag Opening, 230V
BS4 34-0063		3.6.2	Spare Waste Bags, 600 x 300 mm, for BS4 34-0062
BS4 34-0065		3.6.4	Spare Waste Bags, 300 x 300 mm, for BS4 34-0064
BS4 34-0066		3.6.5	Replacement Pre-Filters
BS4 34-0067		3.6.6	Replacement HEPA Filters

Rodent Infusion Cages



Rodent Infusion Cage (Pump not Included)

- No sharp corners
- Tethers less likely to tangle
- Probes less likely to dislodge
- Durable polycarbonate for long life
- Available for mice and rats

Durable polycarbonate cages designed to house tethered rodents during short-term infusion and microdialysis experiments. Since the cage is round, tethers will not tangle as they sometimes can in shoebox-type cages. Also, animals are less likely to dislodge sensitive probes since there are no sharp corners. Handles at the top make it easy to move the animal around the lab.

These Animal Cages are frequently used with Counter-Balanced Lever Arms but are also compatible with the BS4 61-0020 Universal Cage Mounting System. This cage is available in two sizes and can be supplied with any combination of feeders and water bottles. Pictured above is a complete animal infusion system featuring our PHD 22/2000 Syringe Pump, BS4 61-0046 Mouse Cage with Water Bottle, Counter-Balanced Lever Arm, and a Stainless Steel Swivel. The pump, swivel and lever arm are sold separately.

Catalog No.	\$	Product
BS4 61-0046		Mouse Infusion Cage, polycarbonate, 21.6 cm (8.5 in) high
BS4 61-0048		Mouse Infusion Cage Cover
BS4 72-0014		Mouse Infusion Cage with Pellet Feeder
BS4 72-0015		Mouse Infusion Cage with Water Bottle
BS4 72-0016		Mouse Infusion Cage w/ Pellet Feeder and Water Bottle
BS4 61-0047		Bottom Screen for Mouse Infusion Cage
BS4 61-0024		3.5 inch Counter-Balanced Lever Arm for Mouse Infusion Cage
BS4 61-0042		Rat Infusion Cage, polycarbonate, 38.1 cm (15 in) high
BS4 61-0044		Rat Infusion Cage Cover
BS4 72-0017		Rat Infusion Cage with Pellet Feeder
BS4 72-0018		Rat Infusion Cage with Water Bottle
BS4 72-0019		Rat Infusion Cage with Pellet Feeder and Water Bottle
BS4 61-0023		6 inch Counter-Balanced Lever Arm for Rat Infusion Cage

Containment Equipment

Rodent Containment System



This system is extremely useful for acute or chronic studies including metabolism studies, euthanasia, CO₂ collection, inhalation studies and isolation requirements. It can be used as an open or closed system.

This system consists of a transparent plastic cylindrical body section, two convex cone-shaped sections, and a concave cone-shaped top section. Both the top and bottom convex cone sections have gas orifices. The orifice on the bottom section may also be used as a urine separator/collector. The concave top section permits the use of a standard water bottle. An optional Liquid Diet/Water Feeder, available as an accessory, can be mounted inside the chamber with the brackets supplied.

The small chamber is for mice, small rats and gerbils. The large chamber is for large rats and guinea pigs. Supplied complete with a plastic grid floor, fecal/urinary separator, metal tripod stand, two gas nipples (1/8 NPT x 1/4 NPT hose barb) and a roll of vinyl sealant tape.

Specifications

Chamber Size	Small	Large
Dimensions:		
ID	20.9 cm	26.6 cm
Height	20.3 cm	22.8 cm
Center Height	15.2 cm	20.3 cm
Floor Clearance	7.6 cm	13.9 cm
Volume Capacity	7.0 L	13.5 L

Catalog No. \$ Product

BS4 52-0403	Rodent Containment System, small
BS4 52-0411	Rodent Containment System, large
BS4 59-9434	100 ml Liquid Diet/Water "J" Feeder With Rubber Stopper and Mounting Brackets

NEW Quick Mini Thickness Gauge



- Small size ideal for use with mice and rats
- Easy to read digital display
- Two sizes available

The Quick Mini is a convenient snap-action pocket thickness gauge offering a LCD digital readout. The Quick Mini is ideal for rapid checking of a wide variety of materials including the delicate tissue of mice and rat ears, paws, and tails. This Thickness Gauge is available in two small sizes that measure up to 0.5 inch or 1.0 inch.

Specifications

Measuring Range	12 mm (0.5 in) or 25 mm (1.0 in)
Resolution	0.01 mm (0.0005 in)
Instrumental Error	±0.02 mm (±0.001 in)
Repeatability	0.01 mm (0.0005 in)
Battery	SR44 #541980
Battery Life	2 yr under normal use
Max. Response Speed	1,600 mm/s
Alarm	Battery voltage low, overspeed

Catalog No. \$ Product

BS4 72-6520	Quick Mini Thickness Gauge, 0.5 inch
BS4 72-6521	Quick Mini Thickness Gauge, 1.0 inch

Rodent Carrying Case



- Lightweight - weighs 0.45 kg (1 lb)
- Discretely move your animal from one location to another

Use this unobtrusive, light weight Case to carry an animal from one place to another. The one-piece charcoal grey copolymer Case has a recessed handle, positive latches and a screened ventilation hole.

It measures, H x W x D, 15.2 x 31.4 x 17.8 cm (6 x 12-3/8 x 7 in).

Catalog No. \$ Product

BS4 52-8232	Rodent Carrying Case
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Animal Weighing Products

Complete Animal Weighing System



- Complete system with balance, printer, and animal containment basket
- Ideal for live animal weighing
- Automatic calibration
- ISO 9000 registered, CE marked
- Optional software kit available

This Complete Animal Weighing System is essential when extremely accurate animal weight measurements are needed. The microprocessor-controlled balance is dual range with readabilities down to 0.01 grams. Standard features include live animal weighing and RS-232 data interface with selectable baud rates. An accurate animal weight is obtained using the time averaging mode. This mode also

has a reset function allowing you to arrive at the final weight reading in seconds rather than minutes with just the push of a button.

This high performance balance can also be used for many other applications with these other standard features: GLP/GMP/ISO compatibility, automatic calibration programs, percent weighing, automatic zero tracking, system checkout sequencing, built-in security bracket, stability indicator, capacity tracker, below balance weighing for specific gravity determination, microprocessor control, exclusive real time temperature compensation software, parts counting, user selectable vibration filtering, floating tare, and auto-ranging.

Printer

This small dot matrix printer utilizes the electronic balance's standard RS-232 interface and is ideal for recording your data for later review. The printer is supplied with the necessary interconnecting cable and one roll of printer paper.

Animal Containment Basket

This simple, lightweight, aluminum basket is used to hold the animal while weighing. Simply place the basket with lid on the balance and use the tare feature. Next, take the basket to actually retrieve your animal and transport it from its cage to the balance. The basket lid keeps the animal from escaping. It also helps keep your balance clean. The basket measures 22.9 cm (9 in) in diameter and is 15 cm (6 in) high. The basket is shown with the Triple-Beam Balance on page C19.

Optional Software Kit

The Labtronics Balance Talk software is for those people who simply want to turn on their computer and begin collecting data. It is ideal in the laboratory environments where an easy to use system is required. This software kit, utilizing Labtronics Balance Talk software, is a unique solution to your balance data collection, analysis, storage, and reporting needs. It also permits remote control of your balance. The kit consists of the Labtronics software, "setups for Scientech Balances" diskette which includes automatic protocols defaults and special Scientech bidirectional commands and macros, RS-232 cable for connection between a Scientech balance and your PC, and instruction manual. Hardware requirements are listed below.

Minimum Hardware Requirements for Software Kit

An IBM compatible 80386DX or higher with:

- 4 MB RAM minimum, 8 MB recommended
- Hard disk with at least 5 MB of free space
- At least one 3.5 in floppy drive
- VGA or higher resolution
- COM1 / COM2 etc. ports to support RS-232 communications (the minimum is one available COM port)

Specifications

Weighing Mode	Dual	
Weighing Ranges	1000 g	3000 g
Readability	0.01 g	0.1 g
Repeatability (std dev)	±0.01 g	±0.05 g
Linearity	±0.015 g	±0.05 g
Stabilization Time	~3 sec	
Dimensions:		
Pan Size	16.5 cm (6.5 in) circular	
Balance Housing, H x W x D	8.3 x 19 x 28.6 cm (3.25 x 7.5 x 11.25 in)	

Catalog No.	\$	Product
BS4 72-1360		Complete Animal Weighing System, 115 VAC
BS4 72-1361		Animal Weighing Balance Only, 115 VAC
BS4 72-1362		Dot Matrix Printer with One Roll of Paper
BS4 72-1355		Aluminum Animal Containment Basket with Lid
BS4 72-1356		Aluminum Animal Containment Basket without Lid
BS4 72-1357		Lid for BS4 72-1361 Containment Basket
BS4 72-1363		Software Kit
BS4 72-1364		Dust Cover for Balance
BS4 72-1390		Complete Animal Weighing System, 220 VAC
BS4 72-1391		Animal Weighing Balance Only, 220 VAC

Animal Weighing Products

Battery-Operated Portable Scale



- Ideal for weighing small rodents directly in animal room
- Bright, easy-to-read LCD display
- Battery-operated
- Simple, one button operation

This compact Scale provides total portability in a durable, easy-to-clean housing. This Scale features simple, one button operation with a high contrast LCD display reading in grams or pounds:ounces. The Scale runs on a single 9 volt battery (not included). It has an automatic shutoff feature that turns the Scale off after 120 seconds to extend battery life.

Available in three capacities: 200, 2000, and 5000 grams with readabilities of 0.1, 1, and 2 grams respectively. AC Adapters and a 1044 ml Animal Container are available as accessories.

Specifications

Capacity	200 g	2000 g	5000 g
Readability	0.1 g	1.0 g	2.0 g
Accuracy (%)*	±0.75	±0.35	±0.35
Weighing Modes	g, lb, oz		
Stabilization Time	~2 sec		
Tare Range	To capacity by subtraction		
Operating Temperature Range	10° to 40°C		
Dimensions:			
Platform Size	13.3 x 13.3 cm (5.24 x 5.24 in)		
Balance Housing, H x W x D	4.1 x 14 x 19.1 cm (1.6 x 5.5 x 7.5 in)		
Weight (net/shipping)	0.5/0.9 kg (1.1/2.0 lb)		

Catalog No.	\$	Product
BS4 72-4585		Portable Electronic Scale, 200 g Capacity
BS4 72-4586		Portable Electronic Scale, 2000 g Capacity
BS4 72-4587		Portable Electronic Scale, 5000 g Capacity
BS4 72-4594		AC Adapter, 220/240 VAC, 50/60 Hz - European plug
BS4 72-4595		AC Adapter, 240 VAC, 50/60 Hz - UK plug
BS4 72-4596		AC Adapter, 240 VAC, 50/60 Hz - Australian plug
BS4 72-4592		1044 ml Animal Container, H x W x D, 6.4 x 12.7 x 14.7 cm (2.5 x 5 x 5.8 in)

* Note: Percentage actual load or ±3 counts, whichever is greater.

All-Purpose Portable Electronic Scale



- Five different weighing modes; automatic calibration
- Large, easy-to-read LCD display

This rugged, durable and fully portable Electronic Scale is truly versatile. The easy-to-use functions are accessible from the front panel so you can select the specific weighing unit you need. There are six different weighing modes. See the Specification table for details.

This scale is supplied with an AC adapter and calibration weights. It will also operate using 8 AA batteries (not included). The pan measures, W x D, 10.2 x 12.7 cm (4 x 5 in).

Specifications

Repeatability/Linearity	0.7 g / ±1 g
Tare Range	To capacity by subtraction
Over Range Capacity	102.5%
Stabilization Time	2.5 sec
Shaft Accuracy	±1 g; 1/2 capacity, 1/2 distance
Zero Point Drift	±1 g/°C
Sensitivity Drift	±0.005%/°C
Operating Temperature	0° to 40°C (32° to 104°F)
Display	LCD, 1.3 cm (1/2 in) high
Battery (not included)	8 AA, 50 hr life typical, has low battery indicator
Platform Size	12 x 16.5 cm (4-3/4 x 6-1/2 in)
Dimensions, H x W x D	6.3 x 17.8 x 19.7 cm (2-1/2 x 7 x 7.7 in)
Weight	1 kg (2.3 lb)
Units:	Capacity x Readability
Grams	6000 x 1.0
Ounces	212 x 0.05
Ounces Troy	196 x 0.05
Pennyweight	3900 x 1.0
Carats	3000 x 5
Pounds	13.4 x 0.002

Catalog No.	\$	Product
BS4 51-3797		All-Purpose Portable Electronic Scale, 230 VAC, 50 Hz

Triple-Beam Balance



- Available with animal basket or stainless steel scoop
- Virtually any shape or size of sample can be accommodated
- Rugged and portable

This Balance provides sensitivity and long service by use of covered, self-aligning agate bearings and precision hardened knife edges. Magnetic damping speeds weighing by quickly arresting beam oscillation without affecting sensitivity or accuracy.

This Balance is offered with either an aluminum animal basket measuring 22.9 cm in diameter by 15 cm high (9 x 6 in) or a stainless steel scoop measuring 30 x 15 x 7 cm (11-3/4 x 6 x 2-3/4 in). Each Balance comes complete with two 1000 g and one 500 g attachment weights. The Balance is also available with the animal basket only and no weights.

Specifications

Capacity with Attachment Weights	2610 g
Sensitivity	0.1 g
Calibrations:	
Front Beam	10 x 0.1 g
Center Beam	500 x 100 g
Rear Beam	100 x 10 g
Dimensions, H x W x D	15 x 47 x 18 cm (6 x 18.2 x 7.1 in)
Weight	3.2 kg (7 lb)

Catalog No.	\$	Product
BS4 51-3747		Triple-Beam Balance with Animal Basket
BS4 51-3754		Triple-Beam Balance with Stainless Steel Scoop
BS4 51-3746		Triple-Beam Balance with Animal Basket (no weights included)
BS4 72-1355		Aluminum Animal Basket with Lid
BS4 72-1356		Aluminum Animal Basket without Lid
BS4 72-1357		Lid for BS4 72-1356 Animal Basket

Electric-Lift and Weigh Table



- Both lifts and weighs your heaviest animals – up to 135 kg (300 lb)
- Helps prevent unnecessary back strain
- Stainless steel construction
- Smoothly lift animals from 30.5 cm (12 in) to 99 cm (39 in) above floor
- Quick calibration saves time
- Large easy-to-read numbers on display to avoid inaccurate reading

This Electric-Lift Table hydraulically lifts the animal smoothly and quietly to the exact height at which you are most comfortable working. The table top and back panel move as one unit on double tracks for a gentle start/stop motion and a stable ride. The lift and descent are controlled with a foot pedal that activates a quiet, powerful electric motor.

A non-slip rubber mat (supplied) fits snugly in the depressed center of the stainless steel table top. The back panel includes a restraining bar and cleats on each side for controlling the animal.

The precision weighing scale quickly and accurately weighs animal and is durable to withstand the rigors of day-to-day operation. The scale has 2 touch pads control: on/off/Tare and lb/kg selections.

This Scale weighs animals below 0.454 kg (1 lb) up to 136.2 kg (300 lb) with $\pm 0.05\%$ accuracy. The readout unit will automatically self-adjust to zero when nothing is on the scale and shuts-off after 20 minutes. The zero function also controls the “tare weight” function. The “tare weight” feature makes it easy to accurately determine the weight of active or nervous animals.

Specifications

Lift Capacity	136.2 kg (300 lb)
Dimensions:	
Table Top, W x D	113 x 50.8 cm (44-1/2 x 20 in)
Overall, W x D	113 x 76.2 cm (44-1/2 x 30 in)
Back Panel, W x H	113 x 106.7 cm (44-1/2 x 42 in)
Height:	
Fully Elevated	218.4 cm (86 in)
Fully Lowered	162.6 cm (64 in)
Weight	168.4 kg (371 lb)

Catalog No.	\$	Product
BS4 59-8842		Electric-Lift and Weigh Table, 115 VAC, 60 Hz
BS4 59-6699		Electric-Lift and Weigh Table, 230 VAC, 50 Hz

Fur Removal Products

Small Animal Clipper



- Powerful yet small
- Provides coarse and fine clipping
- Runs 20°F cooler than previous models

This is the finest heavy-duty Clipper available. Its powerful universal motor runs at high RPMs and has a unique gear-down assembly. This feature gives the Clipper greater power for its small size. New larger sized air intake/exhaust openings permit the clipper to run 20°F cooler than previous clipper models.

With its interchangeable coarse and fine blades supplied, this Clipper can cut through heavy fur quickly and then shave down to bare skin neatly. The size 40 fine cutting Blade can be used to safely trim even the smallest animals. A size 15 medium cutting Blade is available as an accessory. The Blades are manufactured from fine grain, high carbon steel and the cutting teeth are machined to exact dimensions for the most precise cutting. No tools are necessary to change the Blades. It has a twelve foot cord and is double insulated, UL listed and meets OSHA and CSA specifications. Supplied complete with two blades, size 10 and 40, Lubricating Oil, Grease, Cleaning Brush, extra set of brush and spring assemblies. For a listing of other available blades for this clipper, see page C22.

Catalog No.	\$	Product
BS4 52-5204		Small Animal Clipper, 115 VAC, 60 Hz *
BS4 52-1088		Replacement Blades, Size 10 Coarse, Closeness of Cut 1.6 mm (1/16 in)
BS4 52-5207		Replacement Blades, Size 15 Medium, Closeness of Cut 1.2 mm (3/64 in)
BS4 72-6112		Replacement Blades, Size 40 Fine, Closeness of Cut 0.6 mm (3/128 in)
BS4 72-6113		Replacement Blades, Size 50 Ultra Fine, Closeness of Cut 0.40 mm (1/64 in)
BS4 52-5208		Spare Maintenance Kit. Includes Lubricating Oil, 1/2 oz tube, Clipper Grease, 1-1/4 oz tube and a Cleaning Brush
BS4 72-0481		Blade Wash, two 16 oz cans supplied
BS4 72-0480		Blade Lubricant, two 16 oz cans supplied

For the Oster Golden A5 Clipper, 230 VAC Version, see page C22.

NEW Mini Cord/Cordless Small Animal Trimmer



- Compact and lightweight
- Optional cord or cordless operation
- Cool running, no spray coolant needed

This professional quality trimmer is super convenient and suitable for all your small animal fur removal needs. The powerful yet quiet rotary motor runs at 6,000 rpm and does not require a spray coolant. This trimmer offers convenient cord or cordless operation to provide constant trimming power so you will always have a fully charged trimmer ready for use.

Catalog No.	\$	Product
BS4 72-6110		Mini Cord/Cordless Trimmer, 120 V, 6.5 W, 60 Hz
BS4 72-6111		Replacement Blade for Mini Cord/Cordless, size 30

Cordless Small Animal Clipper



- Battery operated for easy mobility
- Simple and easy to use
- Lightweight

This Cordless Clipper is ideal for removing fine hair from laboratory animals without hurting their delicate skin. With internal, rechargeable batteries there is no cord to get in the way. One charging provides 50 to 60 minutes of power for clipping.

This Clipper is supplied complete with base recharger, line cord, one blade with coarse teeth, lubricating oil and a blade guard. The closeness of cut using both blades is 0.8 mm (1/32 in).

If you want both a fine and coarse blade, order Catalog No. BS4 52-9701.

Dimensions:	
Clipper, H x W x D	15 x 3 x 3 cm (5-7/8 x 1-1/8 x 1-1/8 in)
Base, W x D	9.2 x 6.9 cm (3.6 x 2.7 in)

Catalog No.	\$	Product
BS4 52-9719		Cordless Small Animal Clipper with Coarse Blade, 115 VAC, 60 Hz*
BS4 52-9727		Clipper Blade with Fine Teeth, size 40
BS4 52-9702		Clipper Blade with Coarse Teeth, size 30
BS4 52-9703		Lubricating Oil, 1/4 oz tube
BS4 52-9701		Cordless Small Animal Clipper with <u>Coarse and Fine</u> Blades, 115 VAC, 60 Hz

For the Cordless Clipper, 230 VAC Version, see page C21.

NEW **Two-Speed Small Animal Clipper**



- Powerful and fast
- Quiet, lightweight and durable
- Cool running
- Impact resistant

This Two-Speed Small Animal Clipper is great for both light and heavy-duty jobs on all types of animal coats, including dogs and cats.

Special features include a snap-off air filter for easy cleaning, sealed switch, and protective blade gasket with a sixteen foot professional grounded power cord. The 150 VAC Clipper includes one Size #10 detachable blade set (closeness of cut 1.8 mm, 0.071 in). The 220 VAC Clipper includes one size 40 detachable blade set (closeness of cut 0.6 mm, 0.024 in). Both units include cleaning brush, lubricating oil, and instruction manual.

Catalog No.	\$	Product
BS4 72-6114		Two-Speed Small Animal Clipper, 150 VAC, 60 Hz
BS4 72-6105		Two-Speed Small Animal Clipper, 220 VAC, 45 W
BS4 72-6113		Replacement Blades, Size 50 Ultra Fine, Closeness of cut 0.40 mm (0.016 in)
BS4 72-6112		Replacement Blades, Size 40 Fine, Closeness of cut 0.6 mm (0.024 in)
BS4 72-6106		Replacement Blades, Size 30 Medium, Closeness of cut 0.8 mm (0.031 in)
BS4 72-6107		Replacement Blades, Size 10 Fine, Closeness of cut 1.8 mm (0.071 in)
BS4 72-6108		Replacement Blades, Size 9 Fine, Closeness of cut 2 mm (0.079 in)
BS4 72-6109		Replacement Blades, Size 8.5 Fine, Closeness of cut 3 mm (0.118 in)
BS4 52-9703		Lubricating Oil, ½ oz tube

NEW **WAHL Cordless Trimmer**



A compact, cordless trimmer for complete freedom of movement - ready whenever and wherever you are! The WAHL trimmer comes complete with a rechargeable nickel-cadmium battery. Simply place in the 'drop in' recharging stand and the trimmer recharges overnight. The trimmer's motor operates at 15,000 strokes/minute in permanently lubricated bearings.

Catalog No.	\$	Model	Product
BS4 34-0205		5.1.0	WAHL Trimmer, Recharging Stand and Blade, 230 VAC, 50Hz
BS4 34-0206		5.1.1	Spare Standard Blade, 25mm Cutting Width

**For 115 VAC version, see page C20.*

NEW **Contura Cordless Clipper**



This new design (replaces the Minicut) has been developed ergonomically for ease of handling when clipping. Giving a close shave, it is ideal for small animal pre-operative use. Supplied with blade and recharging stand.

Catalog No.	\$	Model	Product
BS4 34-0243		5.10.0	Contura Cordless Clipper, 230 VAC, 50 Hz
BS4 34-0244		5.10.1	Spare Blades for Contura Clipper

NEW **Sterling Cordless Clipper**

Ideal for clipping small animals, the Sterling clipper is supplied with a standard blade, and recharging unit. Blades are easily changed with a snap on/off movement. Available with a left hand or right hand grip to suit the individual user.

Catalog No.	\$	Model	Product
BS4 34-0245		5.11.0	Sterling Cordless Clipper, 230 VAC, 50 Hz
BS4 34-0246		5.11.1	Spare Blade - Standard
BS4 34-0247		5.11.2	Spare Blade - Fine

Fur Removal Products

Oster Golden A5 Clipper



- Powerful yet small
- Provides coarse and fine clipping
- Runs 20°F cooler than previous models

This popular, quiet, cool-running clipper has a range of 18 different blades, sold separately. Operates on 220/240 volt AC/DC. 50Hz cycles.

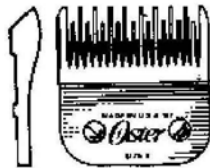
Catalog No.	\$	Model	Product
BS4 34-0207		5.2.0	Oster Golden A5 Clipper, 220/240 VAC, 50 Hz

Specialized Tools For Bioresearch

NEW Oster Blades

The following are the various sizes of blades we are able to offer. The order code is given below each illustration.

For Oster Golden A5 Clipper, 115 VAC Version and Small Animal Clipper, see page C20.



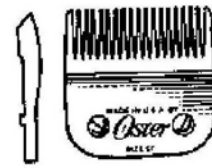
BS4 34-0208
Size 4, 9.5 mm
5.2.2
Lamb Trim with Slightly Longer Coat



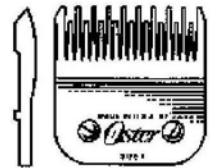
BS4 34-0212
Size 10, 1.6 mm
5.2.6
Head, Face, Feet or sensitive skin



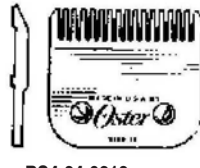
BS4 34-0216
Size 5/8, 0.8 mm
5.2.10



BS4 34-0220
Size 5F, 6.4 mm
5.2.17
Short Lamb Trim



BS4 34-0209
Size 5, 6.4 mm
5.2.3
Short Lamb Trim



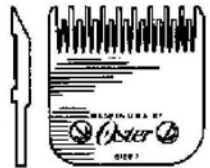
BS4 34-0213
Size 15, 1.2 mm
5.2.7
Face, Feet, Tails in pet trim



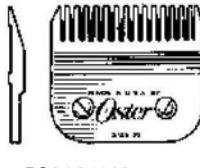
BS4 34-0217
Size 7/8, 0.8 mm
5.2.11



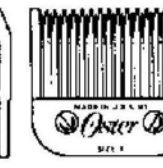
BS4 34-0221
Size 7F, 3.2 mm
5.2.18



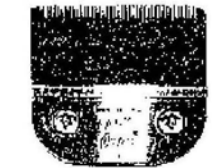
BS4 34-0210
Size 7, 3.2 mm
5.2.4



BS4 34-0214
Size 30, 0.25 mm
5.2.8
Face, Feet & Tail in Show Trim



BS4 34-0218
Size 9, 1.6 mm
5.2.13
Thick Matted Coats & Close Stripping



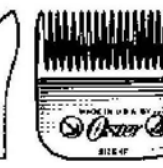
BS4 34-0222
Size 50, 0.2 mm
5.2.20
Very fine surgical use



BS4 34-0211
Size 8.5, 2 mm
5.2.5
Terrier Body



BS4 34-0215
Size 40, 0.1 mm
5.2.9
Surgical Use



BS4 34-0219
Size 4F, 9.5 mm
5.2.14



BS4 34-0223
Size 44, 1.6 mm
5.2.21
Cuts at No. 10 suitable for light horse

Vacuum Clipper System



Vacuum Clipper System
BS4 59-8740

- For dander-free animal clipping
- Ideal for researchers who are sensitive or allergic to animal dander
- Clipper and vacuum in one saves cleanup time

This Vacuum Clipper System removes dander and animal hair during clipping, protecting operators who are sensitive or allergic to these materials. It is made up of three components:

1. Clipper shield
2. Vacuum cleaner with cart
3. Small animal clipper

The unique clipper shield weighs 104.9 g (3.6 oz). It mounts directly behind the blades and will not interfere with the operator's view. Both attachment and removal of the shield from the clipper is easy, facilitating cleaning and decontamination. The airflow across the clipper blades eliminates overheating and the need for a cooling spray.

The vacuum cleaner has a HEPA exhaust filter which is 99.97% efficient at 0.3 microns. Debris is collected in a bag filter which is removed under negative pressure. This further reduces exposure to dander while emptying the vacuum cleaner. The vacuum's swing arm rotates through 360 degrees which allows the system to be placed away from the operator while being used. A sturdy lightweight cart is supplied with the System and permit easy transport from lab to lab or room to room.

Either the BS4 52-5204 or BS4 52-5205 Small Animal Clipper, described the facing page, is included with this system. This clipper mounts on the end of a lightweight hose 1.9 cm (0.75 in) diameter by 152.4 cm (60 in) long. Clipped hair and dander is suctioned past the clipper shield, into the hose, and then ends up in the bag filter internal to the vacuum. This process reduces hair and dander in the air and facilitates lab cleanup.

The system is supplied complete with a paper bag, a cloth filter and HEPA exhaust filter. Replacement paper bags and HEPA filters are offered separately. An optional Tool Kit is also available separately. This kit contains some standard vacuum cleaner attachment tools which allow the vacuum to be used for general lab cleanup (dry only).



Detail of Vacuum Clipper Shield

Catalog No.	\$	Product
BS4 59-8740		Vacuum Clipper System, 115 VAC, 60 Hz
BS4 59-8737		Replacement Paper Bags, pkg. of 10
BS4 59-8742		Replacement HEPA Exhaust Filter, pkg. of 1
BS4 72-0482		Replacement Cloth Filter, pkg. of 1
BS4 72-0483		Tool Kit

Identification Products

Ear Tag Identification Set



Ear Tag Identification Set

- Permanent tags
- Colored Washers provide color-coding for trait-specific identification
- Not suitable for mice

This Ear Tag Identification Set provides an easy method of permanently tagging laboratory animals. Each Set includes: one Ear Punch; one Gauge; 500 6 x 10 mm (0.25 x 0.39 in) Aluminum Tags numbered consecutively

from 1 to 500; 500 9.5 mm (3/8 in) diameter Aluminum Washers and 500 9.5 mm (3/8 in) diameter Plastic Washers in 5 colors (100 each of red, blue, green, white and orange). The colored washers allow identification of the animal's sex, strain, litter, etc.

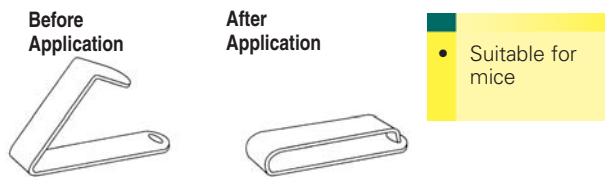
The tagging procedure is simple. A small hole is made in the animal's ear with the Ear Punch provided. The 7 mm (0.28 in) prongs of the 'T' shaped Ear Tag are inserted through the hole. An Aluminum Washer and a Colored Washer (if desired) are placed over the prongs. The Gauge is placed between the animal's ear and the aluminum washer and the prongs are bent flat in opposite directions. The Gauge provides a solid surface for bending the Ear Tag prongs flat, while acting as a temporary spacer. When the Gauge is removed there is ample room for future ear growth.

Replacement and different sized Washers are available separately. The Aluminum Washers are sold with number Tags. The Colored Plastic Washers are sold without number tags.

Catalog No.	\$	Product
BS4 52-4702		Ear Tag Identification Set
BS4 52-4703		Replacement Ear Tag Gauge

Ear Tag Identification Set Replacement Washers				
Washers, Pkg. of 100	Washer Diameter 9.5 mm (3/8 in)	\$	15.9 mm (5/8 in)	\$
Aluminum	BS4 52-4704		BS4 52-4705	
Plastic, Red	BS4 52-4706		BS4 52-4707	
Plastic, Blue	BS4 52-4708		BS4 52-4709	
Plastic, Green	BS4 52-4710		BS4 52-4711	
Plastic, White	BS4 52-4712		BS4 52-4713	
Plastic, Orange	BS4 52-4714		BS4 52-4715	

Small Animal Ear Tags and Applicator



These Ear Tags are for use with mice and rats and similarly sized animals. Tags have a three digit numbering system. Supplied in packages of 500 numbered 001 to 500 or 501 to 1000. Other number sequences available by special order. The Applicator is sold separately.

Catalog No.	\$	Product
BS4 52-4716		Small Animal Ear Tags, pkg of 1 to 500
BS4 52-4718		Small Animal Ear Tags, pkg of 501 to 1000
BS4 52-4717		Applicator for Small Animal Ear Tags

Indelible Marking Pens



These Sharpie® indelible felt tip Marking Pens are excellent for writing on fur, providing long-lasting, positive identification of lab animals. The special ink is water resistant, quick drying and permanent even on moist surfaces. Available in three colors.

Catalog No.	\$	Pen Color
BS4 52-4660		Black, box of 12
BS4 52-4678		Red, box of 12
BS4 52-4686		Blue, box of 12

IMS Ear Punch



This easily operated hole punching device is suitable for marking small rodents whenever a permanent identification system is required.

Two types of punches are available. A forceps type which provides a longer handle for gripping, or the simple thumb type.

Two forceps type punches are available, select either 1.5 or 2.0 mm hole. Three thumb type punches are available, select either 1.0, 1.5 or 2.0 mm hole. These punches are supplied individually.

Catalog No.	\$	Model	Product
BS4 34-0136		4.7.1	Forceps Type Punch, 1.5mm hole
BS4 34-0137		4.7.2	Forceps Type Punch, 2.0mm hole
BS4 34-0138		4.7.3	Thumb Type Punch, 1.0mm hole
BS4 34-0139		4.7.4	Thumb Type Punch, 1.5mm hole
BS4 34-0140		4.7.5	Thumb Type Punch, 2.0mm hole

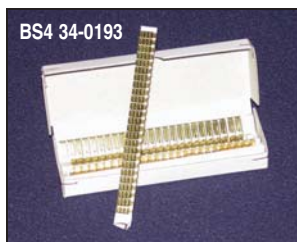
Punch Pliers



These simply Punch Pliers provide an easy and quick method to punch a hole through an animal's ear. Select from a 1 mm or 2 mm hole punch.

Catalog No.	\$	Model	Product
BS4 34-0134		4.6.0	Punch Pliers, 1 mm hole
BS4 34-0135		4.6.1	Punch Pliers, 2 mm hole

Miniature Brass Ear Tags



Can be used for guinea pigs, rats, moles and other small species. They are not suitable for mice. Tags are supplied numbered consecutively in batches of 100. The Miniature Ear Tag Applicator is required to secure the tag. Prefix letters are manufactured by special order only.

Catalog No.	\$	Model	Product
BS4 34-0194		4.22.1	Miniature Ear Tag Applicator
BS4 34-0193		4.22.0	Miniature Brass Tags, numbered 1 to 100, requires BS4 34-0194, see above
BS4 34-0935		4.22.0.2	Miniature Brass Tags, numbered 101 to 200, requires BS4 34-0194, see above
BS4 34-0936		4.22.0.3	Miniature Brass Tags, numbered 201 to 300, requires BS4 34-0194, see above
BS4 34-0937		4.22.0.4	Miniature Brass Tags, numbered 301 to 400, requires BS4 34-0194, see above
BS4 34-0938		4.22.0.5	Miniature Brass Tags, numbered 401 to 500, requires BS4 34-0194, see above

Mini-Miniature Ear Tags

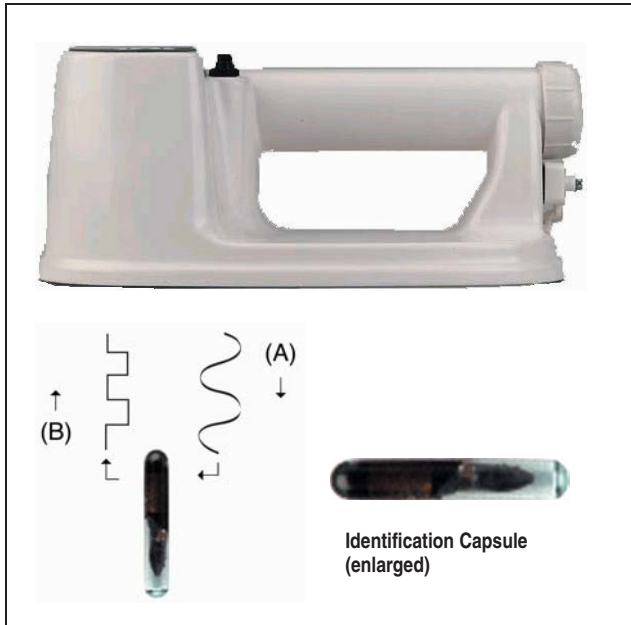


These are especially designed for use with very small adult or juvenile rodents and fish. Manufactured of a silver alloy, they are light in weight and can be used as a substitute for the Miniature Brass Ear Tags. Up to 4 consecutive numbers can be embossed on one half of the tag and up to 6 numbers curved round the tag.

These tags are supplied in packs of 100. They require the Mini-Miniature Ear Tag Applicator (shown above). Prefix letters are manufactured by special order only.

Catalog No.	\$	Model	Product
BS4 34-0200		4.24.0	Mini-Miniature Ear Tags, 4 digits & under
BS4 34-0202		4.24.2	Mini-Miniature Ear Tags, over 4 digits
BS4 34-0201		4.24.1	Mini-Miniature Ear Tag Applicator

Tracker Series Animal Identification Systems



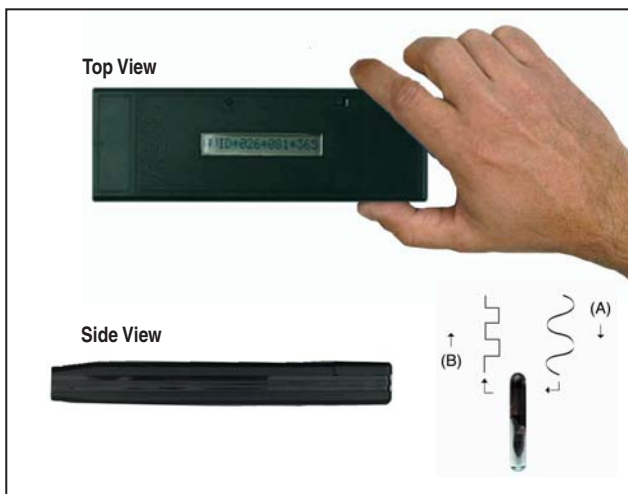
- Most reliable method for animal identification
- Saves time and money
- Simple to implant
- Two sizes of tags:
 - 12 mm size is ideal for mice on up
 - 14 mm size is larger and has a slightly longer read range

Introducing the latest innovative addition to Harvard Apparatus's line of animal identification products, the Tracker Series. Utilizing patented technology, the Tracker Series systems are able to provide precise, secure, and permanent animal identification. Traditionally, accurate laboratory animal identification has been difficult to achieve due to less efficient methods of identification. Old techniques such as ear-punching, tagging, toe clipping and tail tattooing are time consuming, stressful to the animal, and typically not always reliable in long-term studies.

The key to these systems is a microchip hermetically sealed within a bioinert glass capsule the size of a grain of rice. These capsules have a patented anti-migratory coating that helps promote tissue growth and reduce the possibility of rejection. Battery free and biologically inert, the Identification Tag is quickly and safely positioned with a standard injection procedure using a specially designed Needle and Syringe Implanter (see next page). Each Identification Tag is factory encoded with a unique 9 digit ID number which can never be altered, whether by malice or accident, once encoded. The Identification Tag may be recycled if recovered at sacrifice. It may also be stored with tissue samples for long term identification. The Tags will not be harmed or erased by fixatives or freezing.

Two sizes of Identifications Tags are available. The 12mm size is suitable for mice and larger animals. The 14mm size is suitable for rats and larger animals and provides a little longer read range. These ID Tags are available both sterile and non-sterile and are supplied in a package of 25. Each sterile Tag is supplied in a disposable, single use syringe with needle. The sterile Tag is held in position at the bevel of the needle and will not slip out of the needle until the plunger is depressed. The ID Tag number is printed on a peel and stick label (1 label provided for each Tag) for recording convenience. This format is ideal for GLP compliance as well as fieldwork. The non-sterile Tags are provided in a convenient Tag Dispenser within a sealable plastic vial. The Tag Dispenser can be stored in the vial and submersed in an acceptable cold sterilization solution (isopropanol is recommended). The Tags are removed with the Syringe Implanter. Additionally, the Needle of the Syringe Implanter can be stored in the Tag Dispenser and also submersed in the cold sterilization solution.

When an animal's identification is required, simply pass the Reader over the animal and the ID number is displayed. The Reader generates a low-energy radio signal that energizes the Identification Tag (A), which then transmits its unique ID number back to the Reader (B). The number is displayed on a liquid crystal display in an easy to read format. In addition, all of our Readers are capable of transmitting via a standard RS-232 interface to a computer, where the Windows Wedge software allows your Windows application to directly capture and log ID numbers. For the PowerTracker II and III Systems an AC adapter and computer interface cables are required.



Mini Tracker System

The Mini Tracker System is engineered for convenience and performance, providing the ideal solution when portability and cost are important. The Reader is small enough to carry in your pocket and its patented Multi-Mode technology enables tags from different manufacturers to be read (currently AVID and FECAVA, coded radio frequency tags). The ID code is displayed on the Reader's 16 character LCD or can be downloaded via RS-232 to a PC computer. In the operational mode, the Reader emits two beep tones to signal that an Identification Tag has been read. When not in use, four beep tones sound every three minutes to warn the user that the unit is still on.

Tracker Series Animal Identification Systems

Power Tracker II System

The Power Tracker II System is a portable, water-resistant, hand-held Identification Tag Reader. Its patented Multi-Mode technology enables tags from different manufacturers to be read (currently AVID and FECAVA coded radio frequency tags). The ID code is displayed on the Reader's 16 character LCD or can be downloaded via RS-232 to a PC computer. In the operational mode, the Reader emits two beep tones and visual LED flashes to signal that an Identification Tag has been read. When not in use, four beep tones sound every three minutes to warn the user that the unit is still on. Supplied with one Nicad rechargeable battery and battery charger.



Power Tracker III System

The Power Tracker III System is an Identity Tag Reader with memory and translation capabilities. Its patented Multi-Mode technology enables it to read id tags from different manufacturers. Reader is capable of reading, translating and storing up to 2700 AVID or FECAVA coded radio frequency tags. The ID code can be displayed as manufactured or translated to an alphanumeric format as defined by the user. The ID code, in its original or translated format, can be displayed on the Reader's 16 character LCD, downloaded via RS-232 to a computer, or stored in the Reader's 256K non-volatile RAM memory. In the operational mode, the Reader emits two beep tones and visual LED flashes to signal that an Identification Tag has been read. When not in use, four beep tones sound every three minutes to warn the user that the unit is still on. Supplied with one Nicad rechargeable battery and battery charger.



Also available for the PowerTracker II and III Systems is a handheld computer for times when directly connecting your Reader to your computer is not possible. Please call Harvard Apparatus for details.

Each of our Tracker Systems is supplied complete with the specified Reader, a durable Carrying Case, 25 unique, 12 mm, non-sterile Identification Tags, and Syringe Implanter with Needle. The PowerTracker II and III systems also include a Nicad battery charger. Should you require a larger size ID tag, they are available separately.



Specifications

ID Tag

Dimensions, D x L:

Small	2.1 x 12 mm (0.08 x 0.45 in)
Large	2.1 x 14 mm (0.08 x 0.55 in)

Weight:

Small	0.06 g (0.0021 oz)
Large	0.08 g (0.0028 oz)

Life Expectancy >1,000,000 read activations

Read Time < 40 msec

All Readers

Temperature Range:

Operating	0° to 50°C (32° to 122°F)
Storage	-20° to 70°C (4° to 158°F)

Display

16 Character Liquid Crystal Display

Reader

	MiniTracker	PowerTracker II	PowerTracker III
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Operating Frequency

125/128/134.2 kHz	125 kHz	125 kHz
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Typical Read Distance:

12 mm Tag	7 cm (2.6 in)	15 cm (6.0 in)	15 cm (6.0 in)
14 mm Tag	8 cm (3 in)	17.5 cm (7.0 in)	17.5 cm (7.0 in)

Power

9 V alkaline Battery Rechargeable Nicad Battery or Rechargeable Nicad Battery or AC Adapter, 110 V AC Adapter, 110 V

Dimensions, H x W x L

2 x 6 x 18 cm (0.86 x 2.4 x 6.9 in)	9 x 15 x 21 cm (3.5 x 6.0 x 8.2 in)	9 x 15 x 21 cm (3.5 x 6.0 x 8.2 in)
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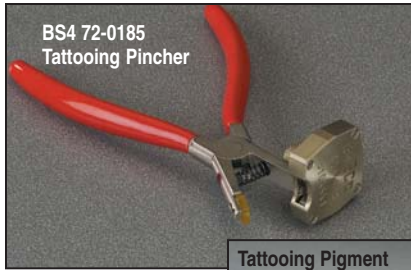
Weight

345 g (0.69 lb)	770 g (1.7 lb)	823 g (1.8 lb)
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Catalog No.	\$	Product
BS4 72-0090		MiniTracker System
BS4 72-0091		PowerTracker II System
BS4 72-0092		PowerTracker III System
BS4 72-0096		12 mm Sterile Identification Tags in Single Use Syringe, pkg. of 25
BS4 72-0097		14 mm Sterile Identification Tags in Single Use Syringe, pkg. of 25
BS4 72-0098		12 mm Non-Sterile Identification Tags, pkg. of 25
BS4 72-0099		14 mm Non-Sterile Identification Tags, pkg. of 25
BS4 72-0100		Syringe Implanter with Needle, pkg. of 1
BS4 72-0101		Replacement Needle for BS4 72-0100 Syringe Implanter, pkg. of 1
BS4 72-0102		Windows Wedge Software, Windows 95/NT
BS4 72-0103		Computer Interface Cable for PowerTracker II and PowerTracker III Readers, requires BS4 72-0104
BS4 72-0104		AC Adapter for PowerTracker II and PowerTracker III Readers
BS4 72-0105		Rechargeable Nicad Battery

Identification Products

Tattooing Pinchers



- Quick and easy to use
- Reliable method of identifying animals without lasting injuries
- Permanently marks laboratory animals from mice to rabbits
- Numbers remain clearly legible for animal's entire life

Tattooing an identification number on an animal's ear is incredibly easy with these Tattooing Pinchers. Simply apply pigment to the needles, place the pinchers over the animal's ear, and gently squeeze the handles. It's that simple!

The Pincher is available in two sizes. The smaller size is for use on mice. It provides a 4 mm impression of a single number from 0 to 9. The larger size is for use on rats, guinea-pigs, rabbits, and larger animals. It provides a 6 mm impression of a two digit number from 00 to 99. Both left and right-handed Pinchers are available. Each is supplied in a sturdy case. Tattooing pigment must be purchased separately.

Catalog No.	\$	Product
BS4 72-0185		Tattooing Pincher for Mice, Right-Handed
BS4 72-0186		Tattooing Pincher for Mice, Left-Handed
BS4 72-0187		Tattooing Pincher for Rats and Larger Animals, Right-Handed
BS4 72-0188		Tattooing Pincher for Rats and Larger Animals, Left-Handed

Tattooing Pigment

This tattooing pigment is available in five colors and is supplied in a 2 ounce bottle.

Catalog No.	\$	Product
BS4 72-5261		Black Tattoo Pigment
BS4 72-5262		Red Tattoo Pigment
BS4 72-5263		Blue Tattoo Pigment
BS4 72-5264		Green Tattoo Pigment
BS4 72-5265		Yellow Tattoo Pigment

NEW Tattoo Set



- Permanent identification of rodents, primates, dogs, fish, etc.
- Easy operation

Can be used on a variety of animals such as rodents, primates, dogs, fish, etc. You can easily mark ears, bellies, thighs, tails, etc., with numbers or symbols, frequently large enough to be seen from a distance.

This Tattoo Set is supplied complete with tattoo machine, storage box, allen key set, spare spring set (front and back springs), wall plug DC power source, on/off footswitch, 2 tubes, 10 needles (4 x 3.1, 4 x 5.2 and 2 x 8.3), six 0.5 oz containers of ink (5 x black and 1 x red), 100 ink cups, grommets and rubber bands.

Catalog No.	\$	Product
BS4 72-0464		Tattoo Set, 120 VAC

**All three sizes (3.1, 5.2 and 8.3) can be used with rodents as well as large animals. The only difference between the needles is in the thickness of the letter or number produced. Size 8.3 will produce the thickest imprint of the 3 sizes supplied.*

NEW Battery Powered Tattoo Gun



- Light Weight - less than 3 ounces
- Creates fine lines that produce clearly legible letters or numbers
- No more loose letters or backwards tattoos - everything you need is in your hand
- Quiet operation for calmer animals

At less than 3 ounces complete, this tattoo gun is ideal for those with carpal tunnel, small hands, or reluctance to use the old-fashioned clamp tattooers! This tattoo gun is quiet so animals remain calmer than using older style guns that make a lot of noise. This reduces blurry characters or numbers and leaves behind a very little but extremely clear tattoo.

This tattoo gun is supplied complete with:

- 1 x .75 oz black ink
- 2 needles (0.022 inch diameter)
- 3 inkwells
- 2 N size batteries
- Carrying case

The unit carries full year's warranty. Not suitable for Mice.

Catalog No.	\$	Product
BS4 72-4260		Battery Powered Tattoo Gun*
BS4 72-4261		Cleaner
BS4 72-4263		Extra Inkwells, pkg. of 3
BS4 72-4264		Extra Batteries, pkg. of 2

** Extra needles are available by special order. Tattoo unit must be returned to assure proper fit of new needles.*

NEW Micro-Tattooing System



- Ideal for mice, rats, guinea pigs and other small animals
- Permanent mark is easily readable on pigmented or albino animals
- Rapid and easy to apply
- Sterile and disposable hypodermic needles prevent the spread of potentially infectious disease
- Inexpensive
- May be used on newborns

This Tattooing System is a quick, efficient and affordable method of permanently identifying laboratory animals, particularly mice and rats as early as one day old. Designed and tested by laboratory animal technicians, the system utilizes a hypodermic needle at one end of a stainless forcep and a small metal cup containing the Green Tattoo Paste at the other side of the forcep. By squeezing the forcep together, the needle penetrates the toe/foot pad, ear or tail of the animal and injects a deposit of green paste in the animal. This method is humane, permanent, rapid, economical, and allows unique identification of large numbers of rodents. A complete kit includes one Micro-tattoo Instrument, 1 oz tube of Green Tattoo Paste, one Stainless Steel Planchette, one Plastic Holding Case and two test Hypodermic Needles.

Recommended Hypodermic Needle size

Young mice: 30 Gauge, 1/2 inch

Adult mice: 27 Gauge, 1/2 inch

Rats and others: 25 Gauge, 5/8 inch

Catalog No.	\$	Product
BS4 72-7640		Laboratory Animal Micro-Tattoo System, complete kit
BS4 72-7641		Green Tattoo Paste, 1 oz, pkg. of 1
BS4 72-7642		Green Tattoo Paste, 5 oz, pkg. of 1

For Standard Hypodermic Needles see page B18.

NEW Solid Drink



- Pouches available in 2 sizes, 150 gm or 75 gm
- Simple to use
- Contents sterile
- Pouch may be surface sterilized
- Fixing flap on each side to enable the fixing of pouch to travelling container, avoiding disturbance of the animals
- Data Sheet available on request

A product designed as a water source during shipment of animals. As a natural product the pouch contains a gel formula. The contents do not spill, thus avoiding contamination and deprivation of fluid. Used also for emergency fluid intake for animals on arrival, short term watering in lieu of bottles, an alternative in the event of water shortage and a 'no mess' provision for post operative animals. Simple to use - no preparation of contents required, just puncture or slit the pouch and place in cage or transport box. Energy Solid Drink is used as a fluid source containing glucose for post recovery animals.

Catalog No.	\$	Model	Product
BS4 34-0045		2.10.0	Solid Drink, 75 gm Pouch, pkg. of 75 pouches
BS4 34-0047		2.10.1	Solid Drink, 150 gm Pouch, pkg. of 40 pouches
BS4 34-0049		2.10.2	Energy Solid Drink, 150 gm Pouch, pkg. of 25 pouches

CareFRESH® Absorbent Sheets



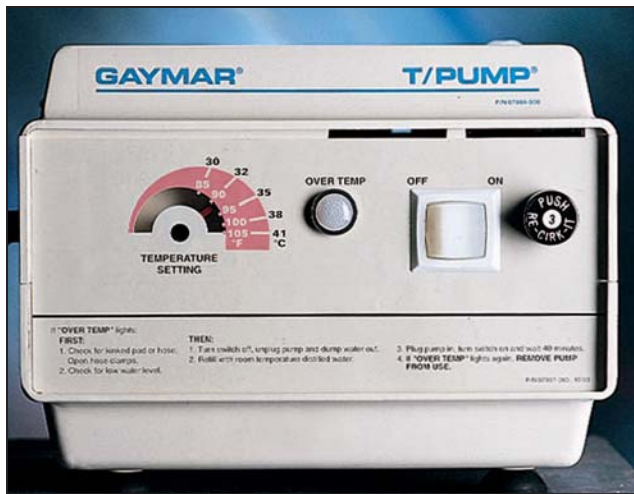
- Super absorbent
- Inexpensive
- Ideal for post surgery, maintaining body heat during recovery, protecting exam tables, and for cleanup of accidental spills

These disposable sheets are ideal for numerous applications. They help prevent body heat loss after surgery. When used under small animal cages, they help make excrement cleanup fast and easy. They can also be used to protect examination tables. Made from a super absorbent cellulose fiber, they are also ideal for cleaning up various spills and animal accidents.

An individual sheet measures 40.6 x 50.8 cm (16 x 20 in). Select from 6.4 mm (1/4 in) or 3.2 mm (1/8 in) thickness. They are supplied in a plastic bag.

Catalog No.	\$	Product
BS4 63-0201		CareFRESH® Absorbent Sheets, 6.4 mm (1/4 in thick), 100 sheets
BS4 63-0202		CareFRESH® Absorbent Sheets, 3.2 mm (1/8 in thick), 200 sheets

Heat Therapy Pump



- Provides a temperature controlled flow of water
- Small size is ideal for laboratories
- For use with the Temperature Therapy Pads listed to right

This Pump provides the source of warm water for use with the Temperature Therapy Pads. Its small size is ideal for any laboratory setting. It can be used with any of the Temperature Therapy Pads listed to the right. The Pump is available alone or with a single

BS4 60-3419 Therapy Polymer Pad. The tubing that connects the pump to the therapy pads is 3m (10 ft) long. Select from standard plastic click-tight connectors or the new, more universal, metal Colder connectors.

A pump stand with 4 casters and a basket, which permits easy movement of the pump from animal to animal or lab to lab, is available separately.

Specifications

Temperature Settings	85° to 107°F
Accuracy	±2°F
Flow Rate	9 to 14 gallons/hr
Dimensions, H x W x D	16.2 x 20.6 x 14.3 cm (6.25 x 8.5 x 5.6 in)
Weight	2.6 kg (5 lb, 2 oz)

Catalog No.	\$	Product
BS4 60-3411		Heat Therapy Pump with Click-Tight Connectors, 120 VAC, 60 Hz
BS4 72-4687		Heat Therapy Pump with Click-Tight Connectors, 220 VAC, 50 Hz
BS4 72-2580		Heat Therapy Pump with Colder Connectors, 120 VAC, 60 Hz
BS4 60-3412		Heat Therapy Pump, 120 VAC (BS4 60-3411) with a single Temperature Therapy Pad 38.1 x 55.9 cm, (15 x 22 in) (see BS4 60-3416 for description of pad)
BS4 60-3413		Heat Therapy Pump Stand with 4 Casters and Basket

Temperature Therapy Pads



- Ideal for maintaining body heat after surgery
- Provides localized warming
- Both disposable and reusable pads available

These Temperature Therapy Pads provide localized warming during procedures, as well as maintaining body temperature after surgery. They work with the Heat Therapy Pump listed to the left.

Therapy pads are available in various sizes with a choice of materials. Select from standard plastic click-tight connectors or the new, more universal, metal Colder connectors. They work well with the Small Animal Surgery Tray, see page D6.

Catalog No.	\$	Product
BS4 60-3414		Disposable Polymer/Fabric Temperature Therapy Pad with Click-Tight Connectors, 7.6 x 58.4 cm (3 x 23 in), pkg. of 10
BS4 60-3415		Disposable Polymer/Fabric Temperature Therapy Pad with Click-Tight Connectors, 33 x 45.7 cm (13 x 18 in), pkg. of 20
BS4 72-2582		Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 33 x 45.7 cm (13 x 18 in), pkg. of 10
BS4 60-3416		Disposable Polymer/Fabric Temperature Therapy Pad with Click-Tight Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 20
BS4 72-2583		Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 10
BS4 60-3417		Disposable Polymer/Fabric Temperature Therapy Pad with Click-Tight Connectors, 45.7 x 66 cm (18 x 26 in), pkg. of 10
BS4 72-2584		Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 45.7 x 66 cm (18 x 26 in), pkg. of 10
BS4 60-3420		Reusable Heavy Duty Pliable All Polymer Pad with Click-Tight Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 1

For Small Animal Surgery Tray, see page D6.