

■ PELCO® R2 Rotator

low-speed mixer for EM specimen infiltration preparations
($\frac{1}{2}$ - 7.5 RPM), design provides two angles 55° or 35°



PELCO® R2 Rotator with 1051 heads shown in the 55° and 35° positions

The slow rotational speed of the R2 lends itself to EM tissue processing techniques. Slow rotation is recommended for processing specimens and leads to more complete infiltration without air mixing, giving improved results for tissue preparations. The PELCO® R2 has rubber cushioned feet on the bottom as well as on the back so it may be placed on either of two angles, 35° from horizontal when placed on the "bottom feet" and 55° from horizontal when placed on the "back feet". A high torque motor maintains constant speed at full load. Variable speed is easily set with a rotary control. Rotational speed is 1.5 - >7.5 RPM. The PELCO® R2 has been tested under heavy load conditions to assure reliability. ⓘ

A black-anodized head (1051) with 18 holes for bottles or vials up to 30mm in diameter comes with the PELCO® R2. Our 12706 or 12708 Snap-Cap® Vials are used in this head. Optional head is available (1054).

Dimensions:

Head -19.7cm (7- $\frac{3}{4}$ ") O.D., 18 holes (32mm \varnothing)
Body -18.6cm (7- $\frac{5}{16}$ ") W, 16.5cm (6- $\frac{1}{2}$ ") H, 20.3cm (8") D

With 1051 head mounted, the PELCO® R2 occupies the following dimensions:

19.7cm (7- $\frac{3}{4}$ ") W, 19.5cm (7- $\frac{11}{16}$ ") H, 20.3cm (8") D

Weight with 1051 head: 2.4Kg (5.25 lbs.)

- 1050** PELCO® R2 Rotator with 1051 Head,
115VAC, 60Hzeach
- 1053** PELCO® R2 Rotator with 1051 Head,
220VAC, 50/60Hzeach
- 1051** R2 Rotator Head, with 18 holes
(32mm \varnothing)each
- 1050-115-1** Replacement Motor, 115V and 220V ...each



1054 Rotator Head for the PELCO® R2



1054 Rotator Head with #411 Specimen Vials

ⓘ = Tech Note on web page

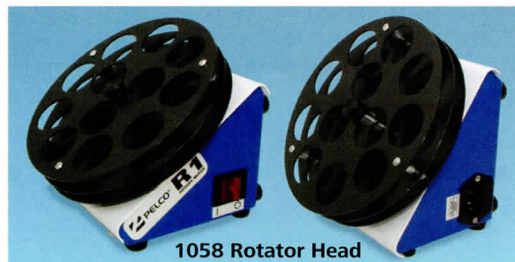
PELCO® R2 Rotator Optional 1054 Rotator Head

Dimensions: Head -19.7cm (7- $\frac{3}{4}$ ") O.D., 31 holes (16.3mm \varnothing)

1054 R2 Rotator Head, 31 holes (16.3mm \varnothing)each

■ PELCO® R1 Single Speed Rotator

tissue infiltration for electron microscopy preparations



1058 Rotator Head

PELCO® R1 Single Speed Rotator shown in the 35° and 55° positions

This small, economical rotator is suitable for electron microscopy preparations. It has a slow speed of approximately ten revolutions per minute. It is effective for gentle and thorough infiltration of solvents and embedding plastics. The Rotator head has twelve holes which accommodate vials up to 30mm in diameter. See additional heads below. ⓘ



1056 Rotator Head for the R1

Base dimensions: 10.2 x 15.6cm (4 x 6- $\frac{1}{8}$ ")

Rotor Head dimensions: (Prod. No. 1058)15.9cm diameter x 2.7cm high (6- $\frac{1}{4}$ x 1- $\frac{1}{16}$ "); 12 holes (32mm \varnothing)

Height with head attached: 13.7cm (5- $\frac{3}{8}$ ")

- 1055** PELCO® R1 Rotator with 1058 Head,
115VAC, 60Hzeach
- 1055-220** PELCO® R1 Rotator with 1058 Head,
220VAC, 60Hzeach
- 1058** R1 Rotator Head, 12 holes (32mm \varnothing) ...each
- 1056** R1 Rotator Head, 23 holes (16.3mm \varnothing) ...each

■ Wheaton "Snap-Cap" Specimen Vials

tight P.E. cap can be removed by the thumb tab with the same hand holding the vial; hygroscopic barrier



TEM tissue handling and processing is conveniently done in the popular, "Snap-Cap" biomedical vial. Polyethylene caps snap over a special sealing ring forming an effective barrier to moisture. EM infiltration and dehydration procedures are commonly carried out in these vials.

- 12701** Glass Snap-Cap Vials, 4ml,
23mm D x 27mm Hcase/144

continued on next page

TEM SUPPLIES

Specimen Vials; Mincing Dish; Trimming and Grossing Boards; Glass Strips, Glass Knife Boats

■ Wheaton "Snap-Cap" Specimen Vials

continued

- 12702** Glass Snap-Cap Vials, 8ml,
22mm D x 39mm Hcase/144
- 12703** Glass Snap-Cap Vials, 12ml,
22mm D x 51mm Hcase/144
- 12704** Glass Snap-Cap Vials, 16ml,
30mm D x 40mm Hcase/144
- 12706** Glass Snap-Cap Vials, 24ml,
30mm D x 52mm Hcase/144
- 12708** Glass Snap-Cap Vials, 32ml,
30mm D x 63mm Hcase/144
- 12710** Glass Snap-Cap Vials, 40ml,
30mm D x 63mm Hcase/72
- 12712** Glass Snap-Cap Vials, 48ml,
32mm D x 83mm Hcase/72



■ Shell Vials

Glass Specimen Shell Vials, 21mm OD x 70mm H,
19mm ID

- 36123** Glass Specimen Shell Vialspkg/10

■ Clear Wheaton Sample Vials, with Rubber Lined Screw Cap



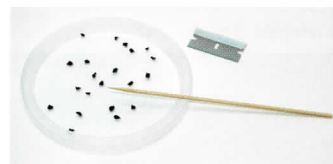
Solid top black phenolic caps with 14B white rubber liner are attached. The vials are manufactured from Wheaton 33® low extractable borosilicate glass (meets ASTM Type I Class A and USP Type I Standards) to protect against changes in pH and maintain purity of contents. They have uniform sidewall and bot-

tom thicknesses, are lightweight and have excellent strength and clarity. Storage down to -40° C.

Typical Elemental Extraction Data of Wheaton 33® Type 1 Glass (ppm)							
element	Si	Al	Na	K	Ca	Mg	Ba
Type 1	<1	<0.003	0.3 to 0.5	<<0.05	<<0.05	<<0.05	<<0.05

- 410** Sample Vials, 2ml, 12mm Dia x 38mm H . . .cs/288
- 411** Sample Vials, 4ml, 15mm Dia x 48mm H . . .cs/144
- 412** Sample Vials, 8ml, 17mm Dia x 63mm H . . .cs/144
- 413** Sample Vials, 12ml, 19mm Dia x 68mm H . . .cs/144
- 12730** Sample Vials, 20ml, 28mm Dia x 60mm H . . .cs/72
- 12731** Sample Vials, 25ml, 28mm Dia x 73mm H . . .cs/72

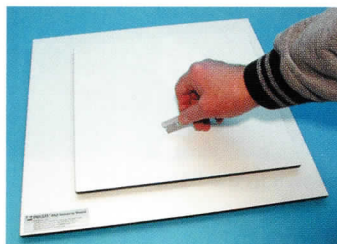
■ Tissue Mincing Dish, 4" OD (10cm)



For: trimming, cutting and specimen preparation, with rim.

- 18387** Tissue Mincing Dishpkg/100

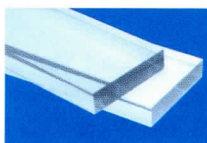
■ Trimming and Grossing Boards



Surface is self-healing and will not damage razor blades or scalpel blades. Good for all types of cutting, sectioning, trimming, dicing and dissecting. Use instead of wax sheets or corkboards. Flat white surface.

- 27220** Trimming Board, 30.5cm square (12")each
- 3152** Grossing Board, 40.6cm square (16")each

■ Glass Strips



High quality glass, accurately cut for square edges; 6, 10 and 12mm thick; 25mm and 38mm width for glass knife makers or hand breaking.

see Diamond Knives, page 145.

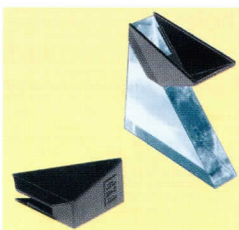
Ultramicrotomy Glass

- 8030** Ultramicrotome Glass Strips,
25mm wide x 200mm long x 6mm thick . . .pkg/24
- 8032** Ultramicrotome Glass Strips,
25mm wide x 400mm long x 6mm thick . . .pkg/30
- 8035** Ultramicrotome Glass Strips,
25mm wide x 200mm long x 10mm thick . . .pkg/24

Histo-glass

- 8050** Histo-glass Strips, 25mm x 200mm x 6mm pkg/12
- 8054** Histo-glass Strips, 25mm x 400mm x 6mm pkg/30
- 8055** Histo-glass Strips, 25mm x 200mm x 12mm pkg/16

■ PELCO® Glass Knife Boats



- Convenient
- Inexpensive
- Reusable

Plastic disposable Boats which fit glass knives 6.4mm thick. These boats provide a larger interior than boats made of tape and no sticky walls to which sections may adhere. Glass Knife Boats (GKB) slip

on the back of the glass knife and are sealed with wax or black nail polish. No only clean but time saving and reusable.

- 123-3** GKB Glass Knife Boatspkg/10

■ Broken Glass Disposal Box



protect your EM personnel

A handy receptacle for safely collecting broken glassware for disposal. Provides mess-free convenience for any work area. A cut-out flap in the lid allows easy insertion of glass. Supplied with a 2 mil (0.05mm) thick polyethylene bag. Tabs keep the liner from slipping out of place. Packaged flat for saving space and shipping costs. Two sizes, benchtop (8095-1) and floor (8095-2).

- 8095-1** Broken Glass Disposal Box, 20 x 20 x 25cm
(8" x 8" x 10")pkg/6
- 8095-2** Broken Glass Disposal Box, 30 x 30 x 69cm
(12" x 12" x 27")pkg/6

■ Glass Knife Station



Freshly broken glass knives (6-7mm or 8mm thickness) can be stored dust-free in this container having a silicone rubber mat with conveniently shaped recesses for the knives. Recesses are numbered. Holds 16 knives.

- 8092** Glass Knife Station, for 6-7mm thicknesseach
- 8093** Glass Knife Station, for 8mm thicknesseach

■ Black Nail Polish



ultramicrotomy

Used to seal troughs or tape boats, or to attach hair or fine wire to sticks for fine probes. Black color provides a nonreflective background. **M**

- 114-8** Black Nail Polisheach

M = MSDS on web page

■ 3M™ Silver Tape, Nonconductive



Silver polyester tape is used for making ultramicrotome boats and for other applications. The tape is 1.0mil (0.025mm) thick. Acrylic adhesive is used. Standard 76mm (3") plastic core.

9.5 and 12.7mm W x 32.9m L ($\frac{3}{8}$ " and $\frac{1}{2}$ " x 36 yd)

- 114-1** 3M™ Silver Polyester Tape,
9.5mm W x 65.8m L ($\frac{3}{8}$ " x 72 yd)each
- 114-12** 3M™ Silver Polyester Tape,
12.7mm W x 65.8m L ($\frac{1}{2}$ " x 72 yd)each

■ Paper Points *tiny, tightly machine rolled, neat*



Paper points which let you aim accurately at a drop or wet area on a specimen block face. No random fibers to obstruct or damage the specimen. The Paper Point can be grasped in a self-closing tweezer. Paper point size decreases as the number decreases.

courtesy of Dr. Stanley Weinreb

Set 115-18 contains a total of 200 Points divided among sizes 15, 20, 25, 30, 35, and 40.

- 115-18** Paper Points, sizes 15-40pkg/200

Set 115-19 contains a total of 200 Points divided among sizes 45, 50, 55, 60, 70, 80. (Sizes of the Paper Point roll increases as the number increases.)

- 115-19** Paper Points, sizes 45-80pkg/200

- 115-24** Paper Points, size 40pkg/200

- 115-25** Paper Points, size 25pkg/200

- 115-15** Paper Points, size 15pkg/200

■ Polypropylene Cups - Static-Free - Graduated



Prepares the Water for Ultramicrotomy

1 fl. oz. volume cups (30ml) which are ideal for preparing water for glass or diamond knife troughs. Causes distilled water to be static-free. Serial sections will not move around the boat. These plastic cups are great for working with ribbons of sections, and ma-

nipulating electron microscopy grids. Graduated by side markings in CC, ML, OZ. and Drams.

courtesy of K. Chien

- 12901** Static-Free Plastic Cups, 30mlpkg/100

■ Tweezer Traps



5689



5690



5691

A safe, convenient and portable tweezer holder in 3 different models for 3,

5 or 8 tweezers or forceps. Made from strong white acrylic with stainless steel pins. The Tweezer Traps allow full view of tweezers, making selection of the tweezers quick and easy. Since there are no slots or holes for the tweezer tips to fit into, there is less chance of damaging the tweezer tips. The model for 3 tweezers is designed for educational applications and dedicated manufacturing stations. The tweezer trap for 5 tweezers is our most popular model for a variety of lab applications. The tweezer trap for 8 tweezers has been designed for specimen preparation, research, microscopy labs and manufacturing where a large variety of tweezers are used.

- 5689** Tweezer Trap, 3 tweezers capacityeach

- 5690** Tweezer Trap, 5 tweezers capacityeach

- 5691** Tweezer Trap, 8 tweezers capacityeach

■ Biomega Hot Plate - Stirrer and Combination Hotplate and Stirrer



Biomega hot plates, magnetic stirrers and hot plate-stirrers feature an exceptionally durable, chemical resistant white ceramic work surface. Their space-efficient design (20.3 x 22.9cm [8" x 9"] footprint), makes them ideal for use

on crowded benchtops and inside of bio-hoods.

Advanced microprocessor controls with convenient turn knobs allow quick, precise adjustment and maintenance of speed and temperature. Safety indicator LED's on the front panel indicate when the heating and / or stirring functions have been activated. Bodies are sturdy, powder coated, cast aluminum construction.

With a square 19cm (7.5") work surface, all three models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels. The Hot Plate and Magnetic Stirrer, Prod. No. 3235, comes complete with a support rod for mounting thermometers and temperature probes.

Specifications			
Model	P40-S Stirrer	P40-H Stirrer	P40-HS Hot Plate/Stirrer
Product Number	3233 / 3233-230	3234 / 3234-230	3235 / 3235-230
Stirrer Speed	60-1500 RPM	-	60-1500 RPM
Temp. Range	-	5-380°C / 41-716°F	5-380°C / 41-716°F
Electrical Data	115V, 5A, 50/60Hz 230V, 3A, 50/60Hz	115V, 5A, 50/60Hz 230V, 3A, 50/60Hz	115V, 5A, 50/60Hz 230V, 3A, 50/60Hz
Power Consumption	500W	500W	550W
Dimensions (W x D x H)	20.3x22.9x11.4cm (8" x 9" x 4.5")	20.3x22.9x11.4cm (8" x 9" x 4.5")	20.3x22.9x11.4cm (8" x 9" x 4.5")
Platform	19 x 19cm (7.5" x 7.5")	19 x 19cm (7.5" x 7.5")	19 x 19cm (7.5" x 7.5")
Weight	4.08kg (9 lbs.)	4.54kg (10 lbs.)	5kg (11 lbs.)

Magnetic Stirrer only - no Hot Plate

3233 P40-S Magnetic Stirrer, 115Veach

3233-230 P40-S Magnetic Stirrer, 230Veach

Hot Plate only - no Magnetic Stirrer

3234 P40-S Hot Plate, 115Veach

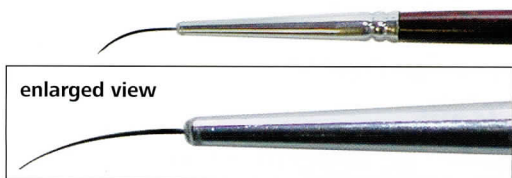
3234-230 P40-S Hot Plate, 230Veach

Hot Plate and Magnetic Stirrer

3235 P40-HS Hot Plate and Magnetic Stirrer
with Support Rod, 115Veach

3235-230 P40-HS Hot Plate and Magnetic Stirrer
with Support Rod, 230Veach

■ Micro Eyelash



A carefully selected No. 1 Superfine Eyelash is attached to a fine wooden handle for delicate manipulation of ultra-thin sections in the knife boat of an ultramicrotome or wherever delicate teasing or manipulation is required. These special eyelashes are chosen due to their taper and strength and make an excellent addition to your dissection tools.

113 No. 1 Superfine Eyelasheach

■ Wax Sheets



for staining, boat sealing, mincing

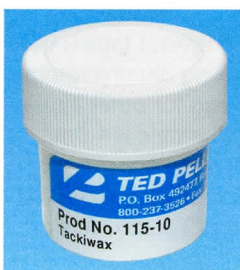
Clean dental wax for various EM procedures. Pink color.

109 Wax Sheets, 1 lb. box, 500geach

Extra Tough

109-2 Wax Sheets, Extra Tough, 1 lb. box, 454geach

■ Tackiwax

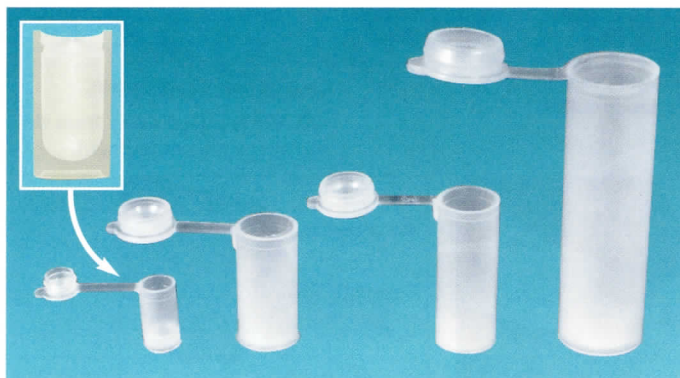


Used to keep thin sections cut with an ultramicrotome in a neat row. Apply a thin layer of Tackiwax to the sides of the block face at top and bottom of trapezoid. 10g.

115-10 Tackiwax, 10geach

Small Polyethylene Vials

excellent seal with captive closure, good for storing electron microscopy grids, specimens, etc.



One-piece molded vials to store non-volatile liquids or solids. Moisture-proof.

The smallest vial (Prod. No. 21441, see cross section) holds one EM grid and has a rounded bottom to prevent grid from laying flat.

- 21441** PE Vial and Cap, 13mm L x 7mm O.D.,
0.3mlpkg/100
- 21445** PE Vial and Cap, 25mm L x 11mm O.D.,
1.6mlpkg/100
- 21449** PE Vial and Cap, 30mm L x 12mm O.D.,
2mlpkg/100
- 21457** PE Vial and Cap, 55mm L x 16mm O.D.,
8.4mlpkg/100

Cube Rack

interlocking on all sides



This solidly constructed Cube Rack is a must for any laboratory. It accommodates (4) 50ml tubes, (10) 15ml conical tubes, (12) 12 x 75 or 12 x 100 tubes, or (16) 1.5 - 2.0ml Microcentrifuge tubes. This

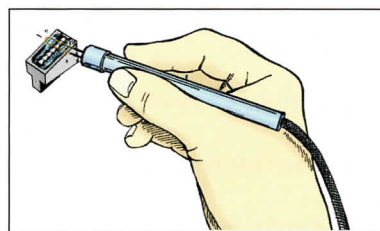
rack is made of autoclavable polypropylene and slides together on any side, allowing the user to work with different tubes on as many connected racks as desired. Sold in packages of 5 assorted colors: blue, green, pink, yellow and orange

- 12940** Cube Rack, assorted colorspkg/5

PELCO® HP1 Heat Pen

a tool for the ultramicrotomy area

use the colored bar indicator to return to previous settings



Reduces compression in thin sections.

The PELCO® HP1 Heat Pen is a useful tool for flattening thin sections cut by an ultramicrotome. Passing the heated filament over the sections while still in the knife boat will flatten them. Vary the temperature setting for optimum effectiveness.

The PELCO® HP1 Heat Pen consists of a power supply housed in a cabinet and fitted with a 3-prong power cord. The filament and holder are connected to the power supply and clamped onto the back of the housing when not in use. The on/off switch is located on top and the intensity of the heat is adjusted by the knob on the front panel. The level of heat can be visually checked by means of 10 progressive colored light bars. When the unit is switched on but not in use, a red light will blink to warn people not to touch the hot filament.



The above method replaces the solvent vapor method which can be harmful to the operator and gives less reproducible results.

CE Approved

- 173-3** PELCO® HP1 Heat Pen, 115 VACeach
- 173-220** PELCO® HP1 Heat Pen, 220 VACeach
- 173-8** PELCO® HP1 Heat Pen Filament Replacementeach

Stratton CJ, Bayguinov Y, Sanders KM, Ward SM, 2000. Ultrastructural analysis of the transdifferentiation of smooth muscle to skeletal muscle in the murine esophagus. Cell Tissue Res 301, 283-298.

■ ACLAR® Film

Grow, stain, embed and section your tissue cultures on ACLAR® film. Separates easily from epoxy, chemically inert, gives flat vibrating blade microtome sections and provides an O₂ barrier.

Additional features:

see Kingsley³ for explanation of most Aclar® points below

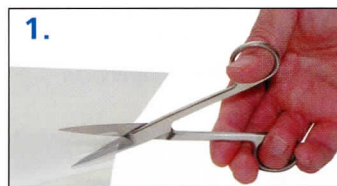
- Separates easily from epoxy
- Transparent fluorinated-chlorinated thermoplastic which contains no volatile components
- Chemically inert, for all practical purposes
- Cells adhere to it readily and remain attached after fixation, dehydration and critical point drying or embedding
- Accepts metal sputter coating
- Stable in the SEM; melting point 202°C
- ACLAR® is as transparent as glass
- Fluorescence microscopy possible since ACLAR® exhibits no detectable autofluorescence
- Can be sectioned and does not damage ultramicrotomy knives
- Considerably simplifies the preparation of cultured cells for all types of microscopy
- Sterilizable
- Gives flat sections
- Smooth surface makes light microscopy observations possible
- Does not degrade under UV or gamma ray radiation
- UV transmission
- Used as an O₂ barrier when flat embedding methacrylate or acrylic resins

ACLAR overcomes a number of problems regarding the processing of tissue culture cells, epoxy embedments, sectioning and observations because of its chemical inertness, non-stick property, glass clarity, flexibility and smooth surface. It may be cut with scissors or blades and does not damage microtomy knives. It is unsurpassed in moisture barrier protection, transparent to UV and is plasticizer- and stabilizer-free. It is nonflammable, nonaging and has a low dielectric constant and dissipation. It is high in dielectric strength. ACLAR can be sterilized³.

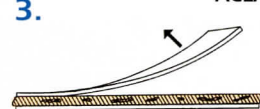
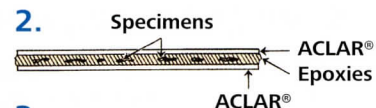
ACLAR® is offered in sheet form, 8 x 12.5" in package quantities of 10 or 25 for both thicknesses. For larger cuts or quantities, please inquire.

1. Masurovsky EB, Bunge RP, 1968. Fluoroplastic coverslips for long-term nerve tissue culture. Stain Technology, 43 (3): 161-165.
2. Mawe GM, Bresnahan JC, Beattie, MS, 1983. Ultrastructure of HRP-labelled neurons: a comparison of two sensitive techniques. Brain Research Bulletin 10: 551.
3. Kingsley RE, Cole NL, 1988. Preparation of cultured mammalian cells for transmission and scanning electron microscopy using Aclar film. J of Electron Microscopy Technique (10): 77-85.

- 10501-10** ACLAR® Plastic Film, 200µm (7.8mil) thickness, 203 x 318mm (8 x 12.5")pkg/10
- 10501-25** ACLAR® Plastic Film, 200µm (7.8mil) thickness, 203 x 318mm (8 x 12.5")pkg/25
- 10503-10** ACLAR® Plastic Film, 50µm (2mil) thickness, 203 x 318mm (8 x 10")pkg/10
- 10503-25** ACLAR® Plastic Film, 50µm (2mil) thickness, 203 x 318mm (8 x 10")pkg/25



1. ACLAR® is easily cut with scissors or paper cutter.



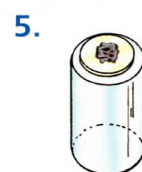
2. Specimens
ACLAR® Epoxies
3. ACLAR® is pulled away from the flat specimen embedment.



4. Cut out the area of interest with a knife, or....



4. alternate Punch out with Disc Punch (see following page for ordering information)



5. Mount disc onto 00 cylinder for sectioning

option A

For comparative TEM and SEM procedures, cut an ACLAR® circle and sample in half after fixation (Kingsley³); use a blunt needle to mark.

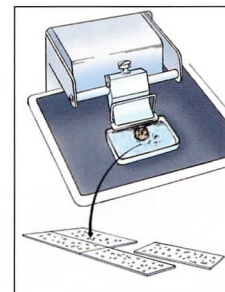


option B



Press between glass plates





Fresh material is cut on a vibrating blade microtome, treated with HRP and placed on ACLAR® cut into a slide shape - observe under LM - if suitable, process for TEM on the slide.



Physical Data	
Thickness	0.0078" (0.198mm) / 0.002" (0.05mm)
Clarity	Clear
Water absorption	Nil
Dimensional change	< or =2.5% (10 min. at 149°C)
Crystalline melting point	202-204°C
Flammability	Nonflammable
Chemical Resistance Data	
Acetone	No effect
100% Ethyl Alcohol	No effect
Liquid Nitrogen	Remains flexible
Osmium Tetroxide	No effect
Propylene oxide	No effect

■ Disc Punches



-  7.9mm ($\frac{5}{16}$ ")
-  9.5mm ($\frac{3}{8}$ ")
-  11mm ($\frac{7}{16}$ ")
-  12.7mm ($\frac{1}{2}$ ")

SEM: For placing adhesive tapes or sheet material on specimen mounts, punch a conveniently sized circle.

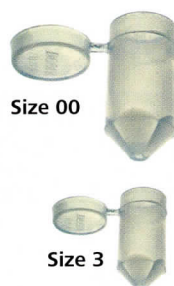
TEM: Punch circles from ACLAR® film for growing cells and then mounting on a rod-type holder end for ultramicrotomy. Thinner, 2mil ACLAR® available for easier punching.

Maximum thickness for punching: 0.067" (1.7mm)

- 54740** Disc Punch, 7.9mm \varnothing circle ($\frac{5}{16}$ ")each
- 54741** Disc Punch, 9.5mm \varnothing circle ($\frac{3}{8}$ ")each
- 54742** Disc Punch, 11mm \varnothing circle ($\frac{7}{16}$ ")each
- 54743** Disc Punch, 12.7mm \varnothing circle ($\frac{1}{2}$ ")each

■ BEEM® Specimen Embedding Capsules

the standard in the EM field



BEEM® Embedding Capsule 00 produces blocks 7.9mm OD

- 130** BEEM® Capsules, Size 00pkg/100

BEEM® Embedding Capsule Size 3 produces blocks 5.6mm OD

- 130-B** BEEM® Capsules, Size 3pkg/100



**BEEM® Bottle-Neck
Specimen Embedding Capsule**

- 130-SPB** BEEM® Bottle-Neck Capsulespkg/100



**BEEM® Conical Tip
Specimen Embedding Capsule**

- 130-SPC** BEEM® Conical Tip Capsulespkg/100

■ BEEM® Capsule Holders



**BEEM® Capsule Holder for
Size 00, 22 cavities**

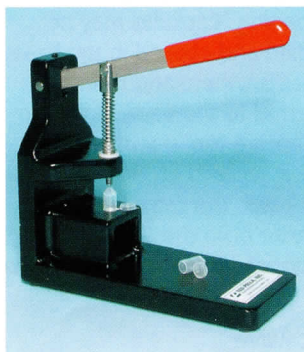
- 132** BEEM® Size 00
Capsule Holder . .each



**BEEM® Capsule Holder for
Size 3, 22 cavities**

- 132-B** BEEM® Size 3
Capsule Holder . .each

■ BEEM® Capsule Press



avoid razor blades - use the capsule press to free the plastic block from its capsule and save your fingers from possible injury

Designed for speed and safety, eliminating possible razor blade cut injuries. BEEM® Capsules 00, SPB and SPC may be removed while No. 3 requires an adapter, which is included.

- 131** BEEM®
Capsule Press . . .each

■ Polypropylene Capsule Chambers

Clear, 26mm (1.02") ID, 10mm (.39") H.

Hinged snap cap closure. Various uses such as flat embedding.



- 21460** Polypropylene Capsule, clear, 26mm ID . .pkg/100

■ Flat Bottom Capsules



For processing specimens in the PELCO® Microwave Systems. Inside dimensions are 00 size: 7.92mm dia x 18.87 mm deep (.312 x .743").

Polyethylene (up to 75°C) or

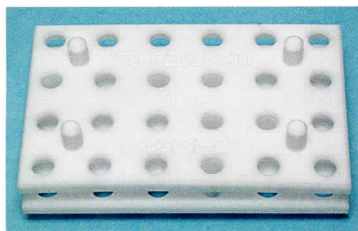
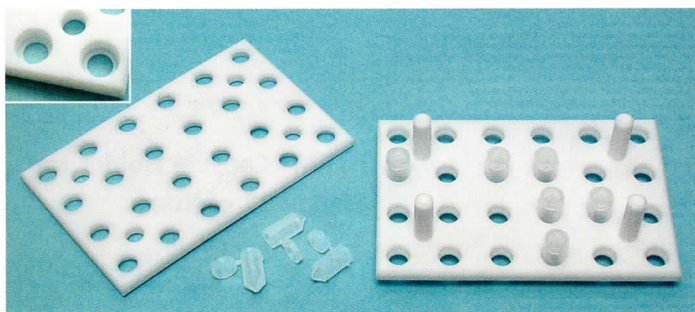
Polypropylene (up to 100°C). Outside diameter 9.6mm.

133 Flat Bottom Capsules, Polyethylene, 00 . . .pkg/100

133-P Flat Bottom Capsules, Polypropylene, 00 . .pkg/100

■ Improved PELCO® Microwave Capsule Holder

Holds 24, 00 Sized Embedding Capsules

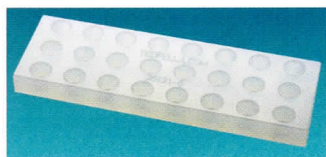


Used for holding capsules during MW resin polymerization. The new design has "stops" on the legs to keep the capsule base level during loading. Capsules may be filled and capped in the base or elsewhere and then transferred to the base. Once the

capsules are placed in the base the "capture top"-- with special recessed areas to fit the capsule lids -- is secured on the four legs. This process secures the capsules and keeps the capsule lids on. *Improvement courtesy of Grete Adamson from the Dept of Medical Pathology at UC Davis Medical School. (Tech Note on web page)*

36131-2 Improved PELCO® Microwave Capsule Holder with Lideach

■ Capsule Preparation Station



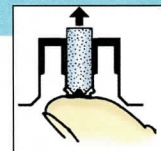
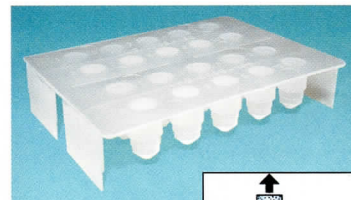
This Prep Station is a helper capsule loading platform to maintain cleanliness from epon liquid spillovers from the above Microwave Capsule holder 36131-2. This pre-loading Station

avoids a potential situation of water contamination in the microwave polymerization procedure. Spillage of unpolymerized epon in the water container during the microwave procedure can be avoided. The 36131-6 permits the technician/scientist to pre-load 00 capsules. Capsules are then transferred to 36131-2 for the polymerization step in the micro-wave processor.

36131-6 Capsule Preparation Stationeach

■ Easy Molds

Embedding molds for sample preparation for electron microscopy, available in two sizes: 5.6 and 8mm diameter. These polyethylene molds make embedding easy. The see-through thinner tips facilitate rapid specimen orientation.



Polymerized blocks can be removed by thumb pressure. Easy Molds come as a free-standing stack of 20 embedding compartments which allow for open circulation of air, giving even polymerization. For anaerobic embedding resins the molds are self-stacking, allowing sealing from air. The used molds are convenient for storage of blocks after sectioning.

130-24 Easy Molds, 5.6mm dia. (#3 size)pkg/5

130-25 Easy Molds, 8.0mm dia. (#00 size)pkg/5

■ Micromoulds *self supporting*

A unitized EM embedding mold consisting of 10 capsules connected by a membrane, which is numbered 1 to 10. Each Micromould has ten (10) 8mm ID capsules which produce 00 size pyramid shaped blocks with 1mm square flat tips. The Micromould is self supporting.



125 Micromouldspkg/10

■ Cryo Capsule Holder



For curing resins under UV in cryo conditions, 22 cavities.

6207 UV Embedding Capsule Holdereach

■ Disposable Polyethylene Storage Syringes

Store embedding media in Polyethylene Syringes in the deep freeze ready for quick use; dispenses easily and cleanly into capsules. Supplied with a cap for the tip. Tip lengths are 28.6mm (1-1/8"); Tip inside diameters at opening are 1.6mm (1/16"). Without graduation.



115-30 Disposable Plastic Storage Syringe, 15ml . .pkg/20

115-40 Disposable Plastic Storage Syringe, 30ml . .pkg/20

Microcentrifuge Tubes & Holder; Gelatin Capsules, Gelatin Capsule Holder; Flat Embedding Mold

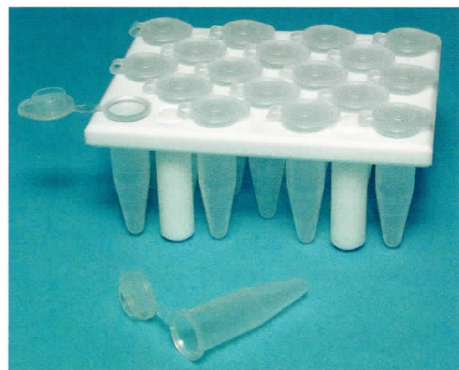
■ Microcentrifuge Tubes



Micro sample tubes, made from polypropylene. Microwave transparent, 1.5ml, graduated 0.5, 1.0, 1.5ml

20836 Microcentrifuge Tubespkg/100

■ Microcentrifuge Tube Holder



Made from PTFE, designed to hold 18 conventional microcentrifuge tubes. Firmly holds tubes in water bath during microwave curing. After spinning down a sample, it can be embedded in place.

36134 PELCO® Microcentrifuge Tube Holdereach

■ 1.5ml Microcentrifuge Tubes



Made of high clarity polypropylene that withstands forces up to 30,000xG. Easy open caps with needle insertion spot and textured marking or labeling area. Graduated 0.1 and 0.25ml on the other side. These are high quality tubes. Available in natural or an assortment of colors: Red, yellow, blue, green and orange. They are packaged in bags of 100 for each of five colors, totaling 500. Microwave transparent.

20838 Natural Microcentrifuge Tubespkg/500

20840 Assorted Colors, Microcentrifuge Tubes . .pkg/500

■ Snap-Fit® Gelatin Capsules



popular for electron microscopy embedding and storage

Current techniques involving the use of acrylic resins and dry ice temperatures for electron microscopy embedding require ultraviolet polymerization in many instances. Gelatin capsules have found a renewed popularity with these applications. Also useful for specimen storage, shipping and carrying of small specimens, apertures, and calibration specimens.

Be sure to pre-dry capsules before use. Flushing with dry nitrogen is recommended before resins are added to the capsules.

Prod. No.	Size.	Length mm	Dia. mm	Volume mm	Pkg.
130-12	000	24.14	9.55	1.37	1,000
130-14	00	23.30	8.18	0.95	1,000
130-16	0	21.20	7.34	0.68	1,000
130-18	1	19.00	6.63	0.50	1,000
130-19	2	17.50	6.07	0.37	1,000
130-21	3	15.50	5.56	0.30	1,000
130-20	4	13.90	5.05	0.21	1,000

■ Holder for Gelatin Capsules



Holds 25 of size 00 gelatin capsules for embedding.

130-15 Holder for 00 size Gelatin Capsuleseach

■ BEEM® Flat Embedding Mold



Virtually transparent polyethylene mold provides excellent visual contact with specimen due to transmitted light. Being able to see your specimen better allows you to align it better. This mold produces smooth, polished flat blocks. Reusable; shipped in plastic box.

111-2 BEEM® P.E. Flat Embedding Mold & Boxeach

Microcentrifuge Tubes & Holder; Gelatin Capsules, Gelatin Capsule Holder; Flat Embedding Mold

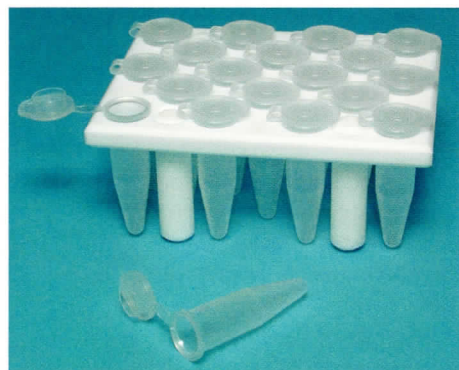
■ Microcentrifuge Tubes



Micro sample tubes, made from polypropylene. Microwave transparent, 1.5ml, graduated 0.5, 1.0, 1.5ml

20836 Microcentrifuge Tubespkg/100

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20838 Natural Microcentrifuge Tubespkg/500

20840 Assorted Colors, Microcentrifuge Tubes . .pkg/500

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130-18	1	19.00	6.63	0.50	1,000
130-19	2	17.50	6.07	0.37	1,000
130-21	3	15.50	5.56	0.30	1,000
130-20	4	13.90	5.05	0.21	1,000

■ Holder for Gelatin Capsules



Holds 25 of size 00 gelatin capsules for embedding.

130-15 Holder for 00 size Gelatin Capsuleseach

■ BEEM® Flat Embedding Mold



Virtually transparent polyethylene mold provides excellent visual contact with specimen due to transmitted light. Being able to see your specimen better allows you to align it better. This mold produces smooth, polished flat blocks. Reusable; shipped in plastic box.

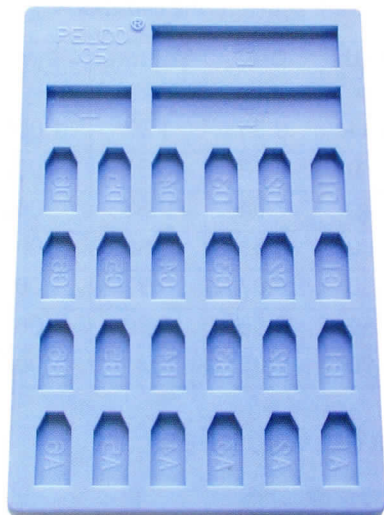
111-2 BEEM® P.E. Flat Embedding Mold & Boxeach

TEM SUPPLIES - EMBEDDING Flat Embedding Molds

PELCO® Flat Embedding Molds

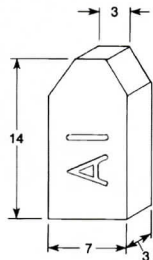
PELCO® silicone rubber molds are made of the highest quality material. Testing in our laboratory has shown that after 12 embeddings with Epon 12 or Araldite at 60°C in the oven, no deterioration was noted.

■ PELCO® Flat Embedding Mold



Alphanumeric self-impression cavities, pretrimmed end, blue silicone rubber.

Design: R.F. Bills



- Number of Cavities: 24
- Numbering: A1- A6, B1-B6, C1-C6, D1-D6
- Special Cavities: 2 troughs - 1 x 3cm x 3mm deep; 1 trough - 1 x 1.7cm x 3mm deep
- Mold Size: 105 x 70 x 7mm thick

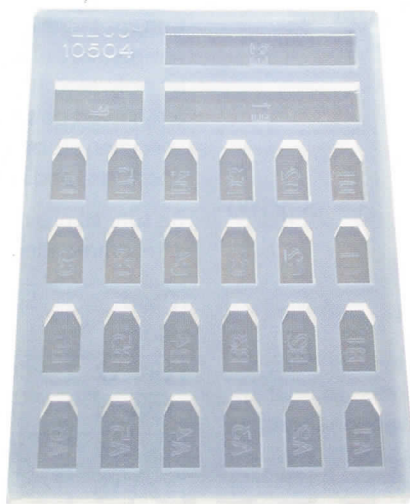
105 PELCO® Flat Embedding Moldeach

Warning: Do not use silicone rubber molds with Spurr Embedding Kit formulation.

Tip: After polymerization in 60°C oven, let molds cool before removing blocks. This precaution will increase the lifespan of the mold.

Tip: Pre-warm molds prior to filling.

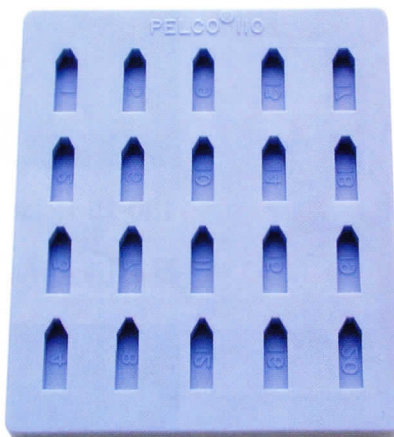
■ PELCO® Flat Embedding Mold, Translucent



Alphanumeric self-impression cavities, pretrimmed end, translucent silicone rubber. Same configuration as Prod. No. 105.

10504 PELCO® Translucent Flat Embedding Moldeach

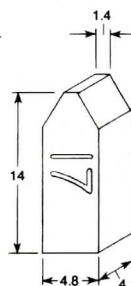
■ Flat Embedding Mold, 110



Consecutive numbering, pretrimmed end, blue silicone rubber. For thicker specimens.

- Number of Cavities: 20
- Numbering: 1-20
- Mold Size: 89 x 76 x 7mm thick

110 PELCO® 20 Cavity Flat Embedding Moldeach



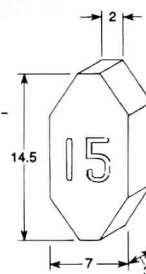
■ Double End-Tapered Embedding Mold



Pretrimmed double ends for each cavity, doubling specimen capacity. Consecutive numbering, blue silicone rubber.

- Number of Cavities: 24
- Numbering: 1-24
- Mold Size: 67 x 85 x 7mm thick

10535 PELCO® Double End-Tapered Moldeach



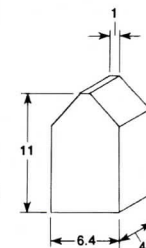
■ Small Flat Embedding Mold



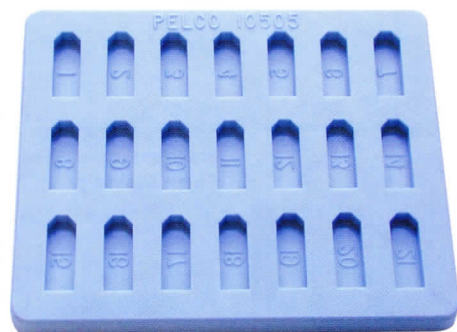
For thicker specimens, blue silicone rubber, no numbering.

- Number of cavities: 12
- Mold Size: 80 x 45 x 7mm thick

106 PELCO® Small Flat Embedding Moldeach



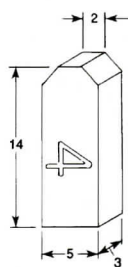
■ EM Embedding Mold, 21 Cavity



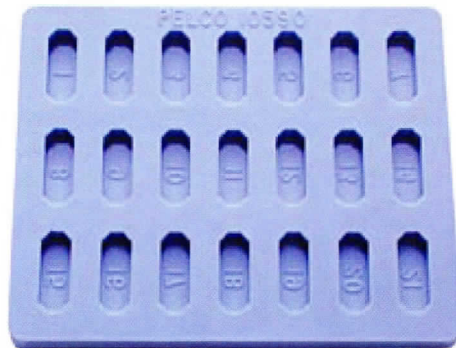
Single pretrimmed end with consecutive numbering. Blue silicone rubber.

- Number of Cavities: 21
- Numbering: 1-21
- Mold Size: 74 x 61 x 6mm thick

10505 21 Cavity EM Embedding Mold . . .each



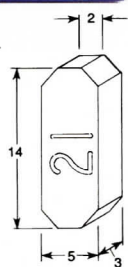
■ 10590 Double End Mold



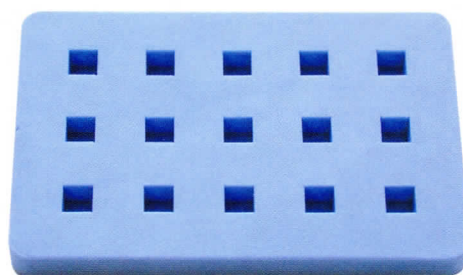
Double pretrimmed ends, consecutive numbering, blue silicone rubber.

- Number of Cavities: 21
- Numbering: 1-21
- Mold Size: 72 x 62 x 6mm thick

10590 Double End Moldeach

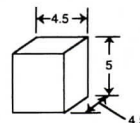


■ Corticosterone Pellet and Implant Mold



Animal implantation experimental application using pellets formed in the 106A. Blue silicone rubber.

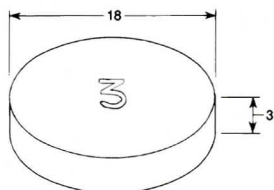
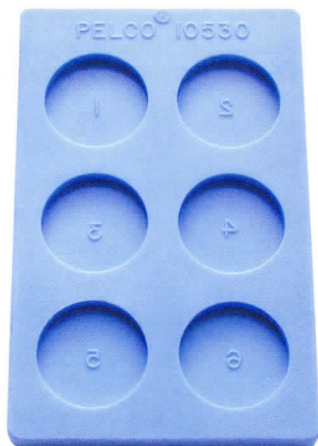
- Cavities: 4.5 x 4.5 x 5mm
- Number of Cavities: 15
- Mold size: 44 x 68 x 6mm thick



106A Corticosterone Pellet Moldeach

Reference: Akana SF, Cascio CSI, Shinsako J, Dallman MF, 1985. Corticosterone: narrow range required for normal body and thymus weight and ACT II. Am J of Physiology, 249: R527-R532.

■ Disc Block Embedding Mold

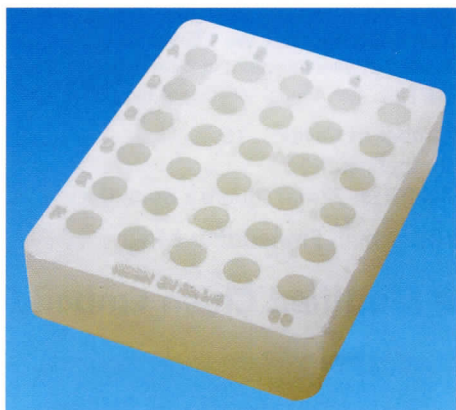


Consecutive numbering, round wells, blue silicone rubber.

- Number of Cavities: 6
- Numbering: 1-6
- Mold Size: 80 x 50 x 7mm thick

10530 PELCO® Disc Block Embedding Moldeach

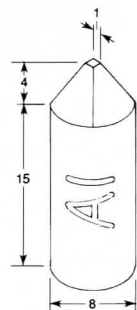
■ Flexible Mold to Produce 00 Size Blocks



Flexible white mold with cavities shaped to produce the traditional EM block, fitting size 00 specimen holders in ultramicrotomes. The mold is tough and thick, and is a composition polymer, not silicone rubber. Truncated pyramid tip.

- Number of Cavities: 30
- Numbering: A1-A5, B1-B5, C1-C5, D1-D5, E1-E5, F1-F5
- Mold Size: 90 x 70 x 20mm thick

10595 Flexible Mold, Block 00 Sizeeach

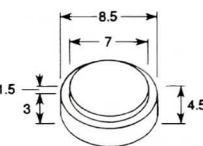


■ Ambrose Mesa Mold



Specimens are embedded against the large flat bottom surface of the mold, 7mm in diameter, for improved orientation. A BEEM® size 00 capsule with the tip removed can be inserted part way into the cavity, before filling with the plastic. Blue silicone rubber.

- Number of Cavities: 12
- Numbering OUTSIDE of Cavities: 1-12
- Mold Size: 97 x 38 x 11mm thick



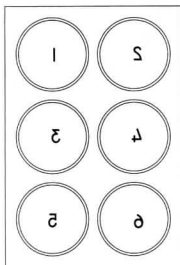
107 Ambrose Mesa Moldeach

Warning: Do not use silicone rubber molds with Spurr Embedding Kit formulation.

TEM SUPPLIES - EMBEDDING

Flat Embedding Molds

PTFE Flat Embedding Mold



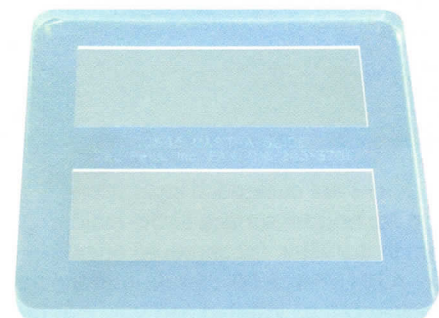
Six tapered round openings, 34mm OD at top and 32mm OD at the bottom, 3mm deep. The cavities are numbered 1-6 at the bottom.

(idea courtesy of Doug Price, University of Kentucky)

10509 Flat Embedding
PTFE Mold, 6 cavities . . . each

Giammara-Hanker Cast-A-Slide Translucent Mold

survey slides, LM, TEM & STEM,
HVEM cytochemistry

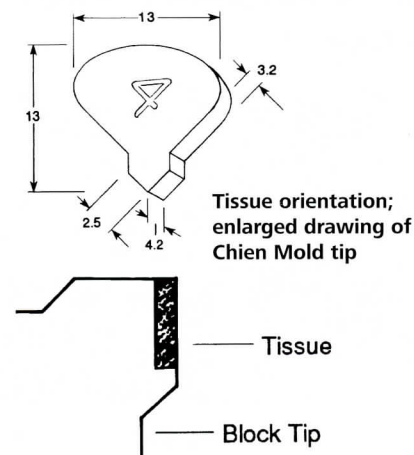
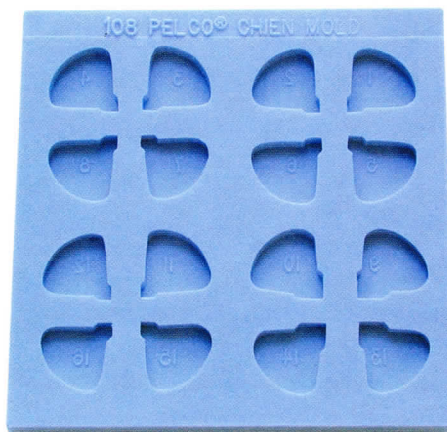


Silicone rubber mold. Produces 2 slides. See reference below. Fixed vibratory slicer sections or cytochemically stained cells, post-fixed with osmium tetroxide, are dehydrated and infiltrated with resin by routine or rapid embedding methods. The sample is placed into a mold recess and resin teased to the edges. Photomicrography may be performed. Selected specimens are excised, glued to blank blocks with cyanoacrylate adhesive and are then sectioned for ultramicroscopy. Translucent.

Reference: Giammara BL, Hanker JS, 1982. Epoxy slide embedment for LM, TEM, STEM and HVEM cytochemistry. 40th Ann Proc Elec Mic Soc Amer. Wash DC, ed. G.W. Bailey, pp 358-359.

10545 Cast-A-Slide each

Chien Embedding Mold



Cut transverse and lateral sections from the same sample. Start with position at 45°, then rotate 180° to cut transverse sections. Blue silicone rubber.

Chien K, Van de Velde R, Heusser R, 1987. Technical Notes on Routine TEM Procedures, Proc. 45th Annual Meeting of the EMSA: 630.

Other interesting papers presented at EMSA authored by Kai Chien, et al:

Chien K, Van de Velde R, Heusser R, 1982. A One-Step Method for Re-Embedding Paraffin Embedded Specimens for Electron Microscopy, Proc. 40th Annual Meeting of the EMSA: 356.

Chien K, Van de Velde R, Heusser R, 1984. A Simple Procedure for Obtaining Clean Sections for TEM, Proc. 42nd Annual Meeting of the EMSA: 42.

Van de Velde R, Chien K, Heusser R, 1984. The Use of Frozen Tissue for Diagnostic Electron Microscopy, Proc. 42nd Annual Meeting of the EMSA: 58.

Chien K, Van de Velde R, Heusser R, 1985. Simultaneous Ultramicrotomy of Multiple Areas and Examination of Ribbons on One New Grid, Proc. 43rd Annual Meeting of the EMSA: 460.

Chien K, Shintaku G D, Wu R L, Van de Velde R, Heusser R, Danao F, Geller S A, 1989. Ultrastructural Identification of Viral Infections in Paraffin Sections Stained by Immunohistochemistry and *In Situ* Hybridization, Proc. 47th Annual Meeting of the EMSA: 1046.

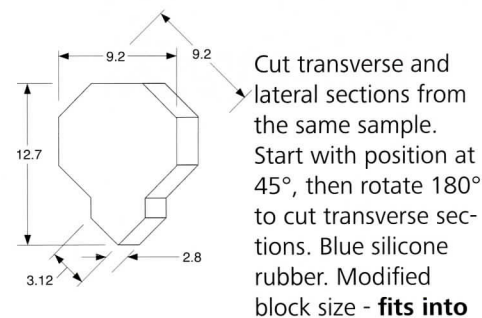
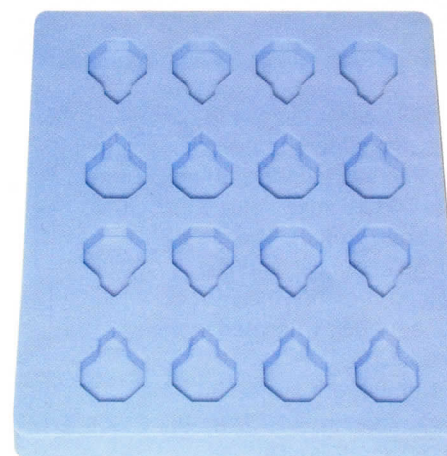
Number of Cavities: 16

Numbering: 1-16

Mold Size: 72mm square x 8mm thick

108 Chien Embedding Mold each

Modified Chien Embedding Mold



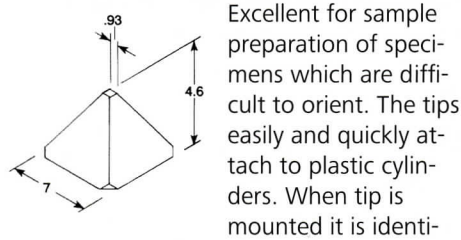
all ultramicrotome flat specimen holders.

• Number of Cavities: 16

• Mold Size: 64mm x 76mm x 8mm thick

108-2 Modified Chien Embedding Mold, 16 Cavities each

■ PELCO® Pyramid-Tip Mold



Excellent for sample preparation of specimens which are difficult to orient. The tips easily and quickly attach to plastic cylinders. When tip is mounted it is identical in dimensions to a BEEM® 00 size capsule. Blue silicone rubber.

See our Cyanoacrylate Fast-Glue (adhesives) on **page 7** and Mounting Cylinders, on this page.

• Number of Cavities: 30
• Numbering: OUTSIDE of Cavities, 1-30
• Mold Size: 61 x 72 x 6mm thick

10585 PELCO® Pyramid-Tip Moldeach

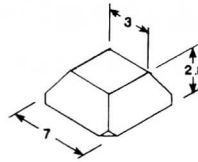
■ 3mm Square Face Mold

for embedding larger specimens, uses less resin



With this mold a larger specimen may be placed in a wider tip area resulting in a

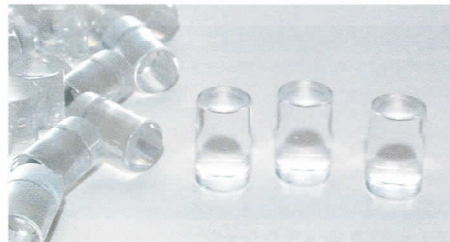
larger initial section. Once solidified the block may be glued to the end of a mounting cylinder or other holding device. (See Mounting Cylinders). Blue silicone rubber.



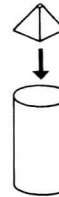
- Number of Cavities: 30
- Numbering: OUTSIDE of Cavities, 1-30
- Mold Size: 61.5 x 72 x 6mm thick
- Block Faces: 3 x 3mm

10586 PELCO® 3mm Square Face Moldeach

■ Mounting Cylinders



Plastic cylinders for attaching pyramid-tips (from molds 10585 and 10586). 8mm diameter x 13mm length. Smooth ends for easy attachment. Lucite.



Pyramid Tip Embedment placement on Cylinder Mount

10580 Mounting Cylinders . .pkg/100

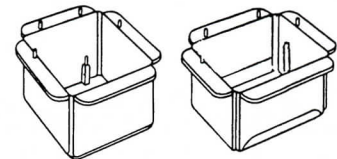
■ Specimen Slug-Mounts, Size 00



For controlled specimen orientation, Specimen Slug Mounts are aluminum cylinders machined at the tip to a conical shape and a flat $\frac{3}{16}$ " tip. Specimens can be mounted and oriented on the tip using an adhesive (see **Adhesives page 7**). The Specimen Slug is then inserted into a 00 size ultramicrotome chuck for sectioning. $\frac{7}{16}$ " long (11mm).

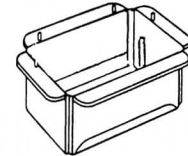
14400 Specimen Slug Mountspkg/10

■ Peel-A-Way® Disposable Histology Molds

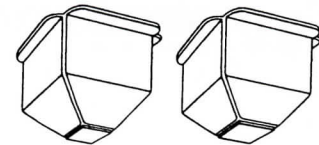


27110

27112



27114



27116

27118

These tear away molds are useful for most plastic embedding media and for paraffin waxes. Especially suited for paraffins. May be used under anaerobic conditions. Peel-A-Way® I.D. Tabs are for use as identification with the Peel-A-Way® embedding molds (8000 per book).

27110 Peel-A-Way® 22mm square, 20mm deepcase/288

27112 Peel-A-Way® 22 x 30mm x 20mm deep, rectangularcase/288

27114 Peel-A-Way® 25 x 45mm x 20mm deep, rectangularcase/288

27116 Peel-A-Way® Truncated, 22mm square top, tapered to 9.5mm bottomcase/288

27118 Peel-A-Way® Truncated, 22mm square top, tapered to 12mm bottomcase/288

27124 Peel-A-Way® I.D. Tabsbook/8000

TEM SUPPLIES - EMBEDDING

PTFE Flat Embedding Molds; PELCO® UVC2 Cryo Chamber

Molds for Flat Embedding Machined from PTFE



Prod. No. 10506 - 16 Cavities, cavity dimensions: 14 L x 4.8 W x 3 D (mm) with radius ends

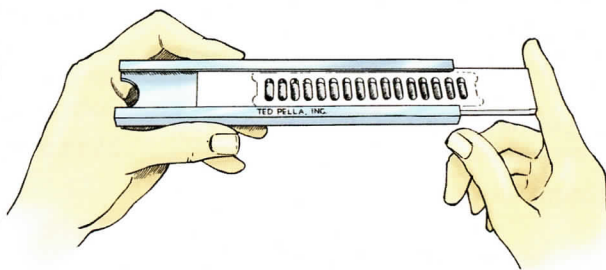


Prod. No. 10506-10 - 11 Pre-trimmed Cavities, cavity dimensions: 14.3 L x 7 W x 3 D (mm) with 3.7mm wide tip (approximate 00 size)



Prod. No. 10508 - 3 Cavities, cavity dimensions: 37.6 L x 13.8 W x 3 D (mm) with radius corners

- Especially useful when embedding with LR White, LR Gold, and Lowicryls for electron microscopy
- Can be used for both low temperature UV and thermal polymerization
- Unique configuration provides recesses for Thermanox® Cover Slips or ACLAR® film to insure anaerobic polymerization (see ACLAR®)



Following curing, each of the specimen blocks can be removed by flexing the mold. To restore flatness of the mold, simply slide it back into the provided metal Clamping Frame. PTFE resin is nonreactive and provides durability, flexibility and ease of release.

10506	Flat Embedding PTFE Mold with Metal Frame, 16 cavitieseach
10506-10	Flat Embedding PTFE Mold with Metal Frame, 11 pre-trimmed cavities (approximate 00 size)each
10508	Flat Embedding PTFE Mold with Metal Frame, 3 cavitieseach
10501-10	ACLAR® Plastic Film, 200µm (7.8mil) thickness, 203 x 318mm (8 x 12.5")pkg/10
10501-25	ACLAR® Plastic Film, 200µm (7.8mil) thickness, 203 x 318mm (8 x 12.5")pkg/25
10503-10	ACLAR® Plastic Film, 50µm (2mil) thickness, 203 x 318mm (8 x 10")pkg/10
10503-25	ACLAR® Plastic Film, 50µm (2mil) thickness, 203 x 318mm (8 x 10")pkg/25
26026	Thermanox® Cover Slips, 22 x 60mmpkg/100

PELCO® PTFE Embedding Molds are often used in the PELCO® UVC2 Cryo Chamber.



The PELCO® UVC2 Cryo Chamber has been specifically designed to provide an economical yet precisely controlled low temperature environment for polymerization of polymers and resins for cryo specimen preparation. It can also be used for dehydration and infiltration of cryo specimens. This simple and functional unit has a large insulated chamber and comprises fully automatic temperature control for the polymerization process of embedding resins and polymers.

Features

- Unit uses inexpensive dry ice
- Automatic temperature control, can operate unattended for up to 24 hours
- Temperature range can be set from -10°C to -37°C (14°F to -34.6°F)
- Includes memory function for Min/Max temperatures during any run
- 365nm ultraviolet lamps thermally shielded by dual pane glass
- Holds up to 66 samples with BEEM Cryo Capsule Holders
- Perfect for Unicryl, LR White, LR Gold, Lowicryls, JB-4, Quetols and all other resins cured by 365nm UV radiation

Operation

- Add dry ice to the chamber
- Set temperature (-10°C to -37°C / 14°F to -34.6°F)
- Turn on UV lamp and cure embedding resins

6202 PELCO® UVC2 Cryo Chamber, 115VAC, 60Hz, includes 3 BEEM® Cryo Capsule Holderseach

6202-220 PELCO® UVC2 Cryo Chamber, 220VAC, 50Hz, includes 3 BEEM® Cryo Capsule Holderseach

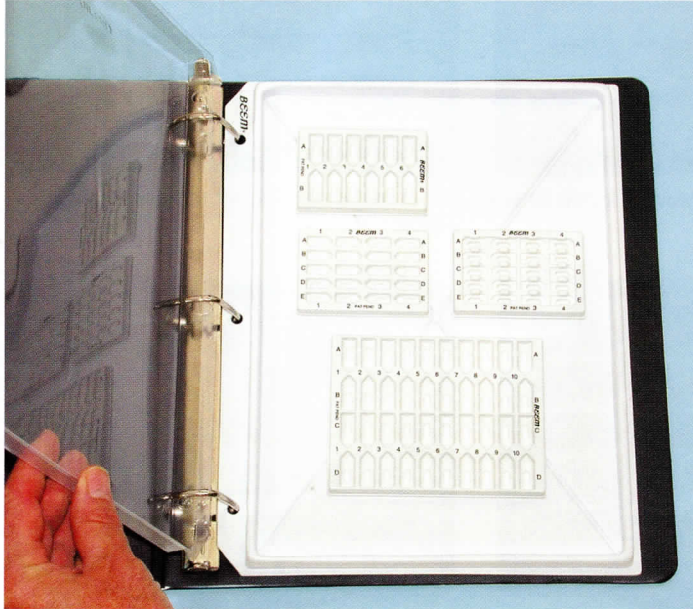
See page 127 for more information.

■ BEEM® Blocklock™ Storage Module System

an innovative approach to organized specimen block storage

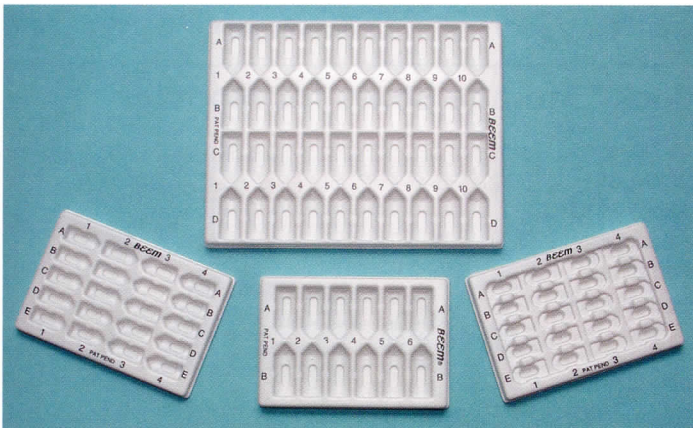
Are your lab benches and drawers crowded with Petri dishes and pill boxes full of various sized blocks?

Do you wish you could neatly catalog, file and store all those blocks in one convenient place? If so, we have the solution to your storage problem.



Covered mounting panel 141-5 fits into standard 3-ring binders

Now you can logically organize and safely store all of your specimen blocks with the new BEEM® Specimen Storage System 2000™. The binder can be stored vertically on a shelf.

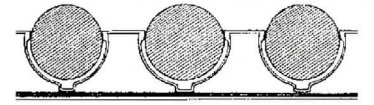


The four newly designed BLEEM® Blocklock™ storage modules (141-1, 141-2, 141-3, 141-4) have peel-off adhesive backing. They may be used without peeling off the backing in the individual plastic boxes or the backing may be removed so they can be adhered to the mounting panels 141-5.

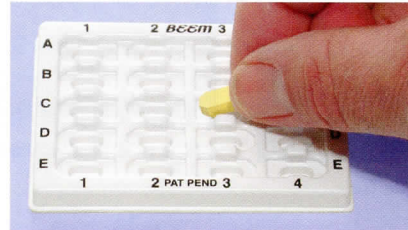
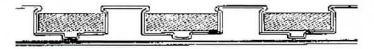
The mounting panels, with clear cover, fit into a standard 3-ring binder (not supplied). (We recommend the use of a "D-type" 3-ring binder for best results).

A 1" binder accommodates two BEEM mounting panels; a 1-½" binder will take three mounting panels.

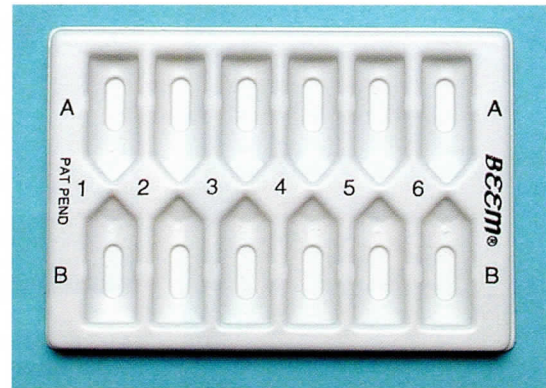
The new BEEM® Blocklock™ specimen storage modules incorporate an innovation that allows blocks to snap into cavities specially designed to retain them so they cannot be inadvertently dislodged.



Diagrammatic cross-section of blocks in BLEEM® BlockLock™ modules



Proper method for inserting a block into the flat BLEEM® BlockLock™ module.



141-1 BEEM® Blocklock™ Module for 12 #00 size Blocks



141-1 BEEM® Blocklock™ Module for 12 #00 size Blocks shown stored in 141-8 Storage Box (blue base)

141-1 BEEM® Blocklock™ Module, #00 size blocks, 12 compartments each

see next page for plastic box information.

Mounting Panel with Transparent Cover

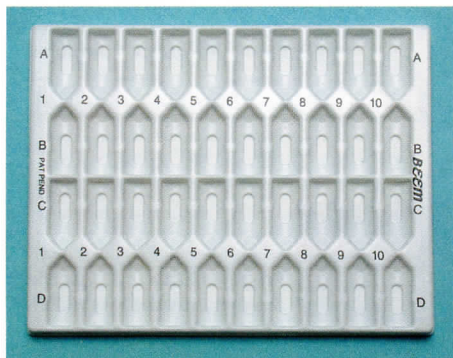
141-5 BEEM® Blocklock™ Mounting Panel with cover each

TEM SUPPLIES - EMBEDDING

BEEM® Blocklock™ Storage Modules and Boxes

■ Blocklock™ Modules for #00 Size Blocks

Holds 40 #00 size blocks
Size: 3.5" x 4.56" (89 x 116mm)

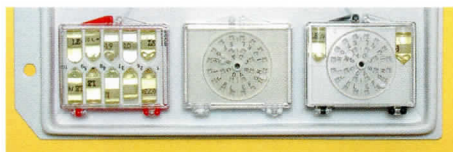


141-2 BEEM® Blocklock™ Module for 40 #00 size blocks



141-2 BEEM® Blocklock™ Module for 40 #00 size blocks, shown in box 141-7 (blue base)

141-2 BEEM® Blocklock™ Module,
#00 size blocks,
40 compartmentseach

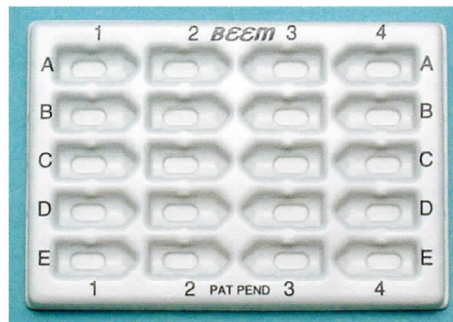


Other Storage Uses for Mounting Panels

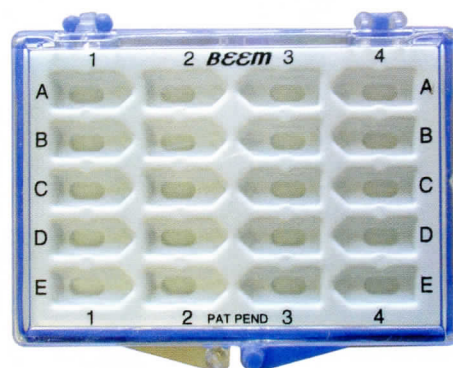
BLEEM® Blocklock™ storage boxes, Dial-A-Grid boxes (134, 135 and 136), and other storage boxes, such as the PELCO® Grid Box, can be attached to the Mounting Panels with double coated tape, as long as the height does not exceed 9.53mm (3/8").

■ Blocklock™ Modules for #3 Size Blocks

Holds 20 #3 size blocks
Size: 2" x 2.8" (51 x 71mm)



141-3 BEEM® Blocklock™ Module for 20 #3 size blocks

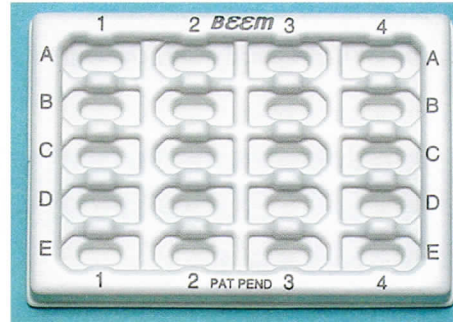


141-3 BEEM® Blocklock™ Module for 20 #3 size blocks, shown in box 141-8 (blue base)

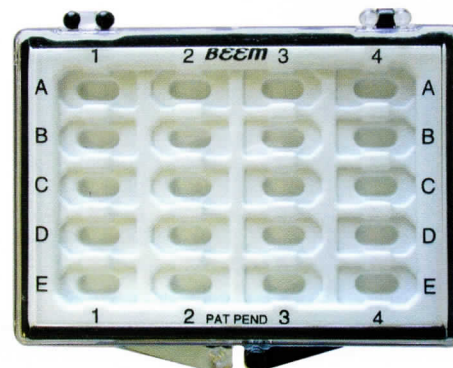
141-3 BEEM® Blocklock™ Module,
#3 size blocks,
20 compartmentseach

■ Blocklock™ Modules for Flat Blocks

Holds 20 flat blocks
Size: 2" x 2.8" (51 x 71mm)



141-4 BEEM® Blocklock™ Module for 20 flat blocks



141-4 BEEM® Blocklock™ Module for 20 flat blocks, shown in box 141-9 (black base)

141-4 BEEM® Blocklock™ Module,
flat blocks,
20 compartmentseach

■ BEEM® Blocklock™ Storage Boxes for Modules

BEEM® Blocklock™ storage boxes are supplied with indexed, translucent labels which can be applied to the top or bottom of the box. Note: these boxes may also be attached to the Mounting Panels with double stick tape.



Box for 141-2 (40 block) 116mm L x 89mm W x 7.9mm H (4- 9/16" x 3-1/2" x 5/16")

141-7 BEEM® Blocklock™ Storage Box for 141-2, 40 block storageeach

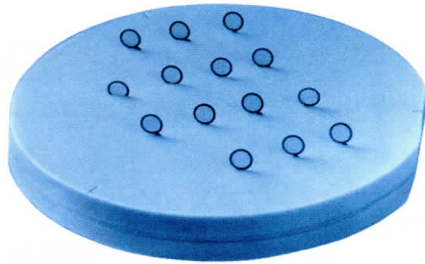
Boxes for 141-1 (12 compartments); 141-3 (20 compartments) and 141-4 (20 compartments)

73mm L x 50.8mm W x 7.9mm H (2-7/8" x 2" x 5/16")

141-8 BEEM® Blocklock™ Storage Box for 141-1, -3, -4, with blue base . . .each

141-9 BEEM® Blocklock™ Storage Box for 141-1, -3, -4, with black base . . .each

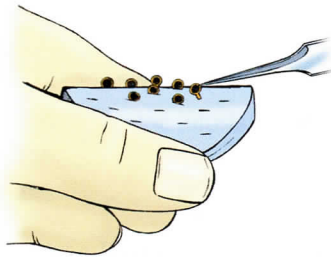
■ Chien Staining Pad



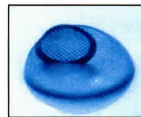
Chien Staining Pad with grids in place

The Chien Staining Pad is also ideal for staining grids in the microwave processor. The silicone pad is flexed and tabbed electron microscopy grids are inserted into the slits. When the pad is unflexed (laid flat) the grids stand

vertically, allowing the surface tension of a droplet of stain to cover both sides of grid. Blue.



Putting grids in place with tweezers while flexing pad



Drop of stain on grid

FLEXING THIS SPECIAL COMPOSITION MOLD WILL NOT RESULT IN GRIDS FALLING OUT.

Reference: Chien K, Van de Velde R, Heusser R, 1984. A simple procedure for obtaining clean sections for TEM. Proc 42nd Ann EMSA, ed. G.W. Bailey, pp 42-43.

10523 Chien Staining Padeach

■ Mesa Staining Pad



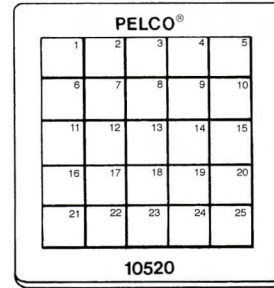
10523-1 Mesa Staining Padeach

Similar to Chien Staining Pad, but slits are in mesa shaped platforms. Stains hold on top of mesas and are more stable if pad is moved. White.

■ PELCO® Grid Holder Pads

Unique silicone rubber pads which act as effective resting points for electron microscopy grids, during processing. Bumping, jostling, jerky movements and carrying accidents can destroy or damage valuable EM grids with mounted sections. Grid Holder Pads minimize such damage by the unique "clean" adherence of the grid to the silicone rubber surface. Three types listed. White.

■ Square Grid Holder Pad

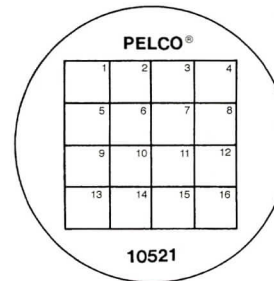


25 numbered squares, 1-25.
70 x 70mm.

Fits square Petri Dish.

10520 PELCO® 70mm Square Grid Holder Pad . . . each

■ Round Grid Holder Pad



16 numbered squares, 1-16.
70mm dia.

Fits standard round Petri Dish.

10520 PELCO® 70mm Round Grid Holder Pad . . . each

■ Round Grid Holder Pad



16 numbered squares, 1-16. With finger tab for easy removal.
80mm diameter for standard Petri Dishes.

Fits standard round Petri Dish.

10524 PELCO® 80mm Round Grid Holder Pad . . . each

10524-1 PELCO® 80mm Round Grid Holder Pad and Petri Disheach

■ Menco Staining Pad for Grids, made from PTFE



The staining pad is 3.5" Dia. (8.9 cm) and fits inside a large glass Petri dish; when this dish is covered with Parafilm evaporation is limited.

10526 PELCO® 80mm Round Grid Holder Pad . . . each

Reference: Menco B, Ph M, 1992. Lectins Bind Differentially to Cilia and Microvilli of Major and Minor Cell Populations in Olfactory and Nasal Respiratory Epithelia, Mic Res & Tech, 23: 181-199.

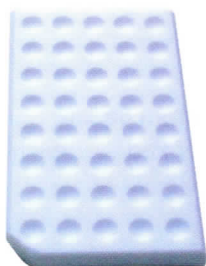
continued on next page

TEM SUPPLIES

Loops; Immuno Staining Molds; Loops

PELCO® Grid Holder Pads *continued*

■ PELCO® Immunostaining Pad made from PTFE

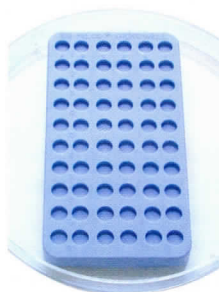


The pad was designed to save chemicals when processing small specimens. Can be used in the Microwave Processor, resists most chemicals and is easy to clean. Angle cut on one corner for orientation. 40 concave recesses, 4.5mm dia. x 1.5mm deep (.18 x .06").

The overall size of the pad is 41.91 x 69.85 x 6.35mm thick.

10526-1 PELCO® Immunostaining Pad, made from PTFEeach

■ Microwell Staining Mold for Immunocytochemistry



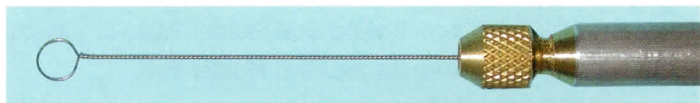
Excellent for immunocytochemistry as well as post staining. Small, save costly reagents. 4.8mm diameter x 1.8mm deep wells. The 60 wells are number and letter coded for identification. Fits into a standard petri dish. Silicone rubber.

Reference: Aoki, A, 1992. Microwell cluster for processing electron microscope sections for immunocytochemistry. Biotechnic & Histochemistry, 67 (2), 98.

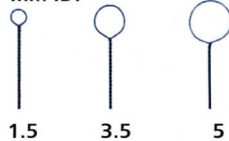
103 PELCO® Microwell Staining Moldeach

■ Loops and Nichrome Wire

for manipulation of specimens during preparation for microscopy



mm ID:



We offer nichrome wire from which loops may be made in the laboratory, or finished loops, ready to be inserted in your favorite handle. An assortment of wire loop diameters and loop handles are available.

13081 Loop Handle only, 15.2cm (6") lengtheach

13082 Nichrome Wire, 30 gauge (0.010", 10mil, 0.25mm) diameter, 30.48 meters (100 ft.)each

13085 Loop (1.5mm ID) and Handle, seteach

13086 Nichrome Loops, 1.5mm ID, 6.35cm long . . .pkg/3

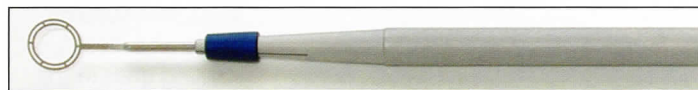
13087 Loop (3.5mm ID) and Handle, seteach

13088 Nichrome Loops, 3.5mm ID, 6.35cm long . . .pkg/3

13089 Loop (5.0mm ID) and Handle, seteach

13090 Nichrome Loops, 5.0mm ID, 6.35cm long . . .pkg/3

■ Perfect Loop for Light Microscopy

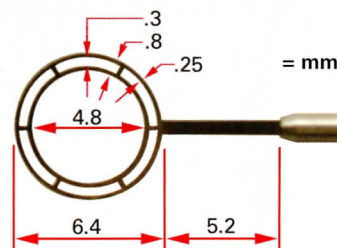


Perfect Loop, LM

Using the Perfect Loop you can pick up and place your freshly cut, thick sections easily onto the grid mesh without creases.

Loop thickness is .05mm (.02") made from stainless steel.

Handle is aluminum with an anodized aluminum slip lock, 150mm long x 4.7mm dia. (5.9" x .187"). Very lightweight.



13060 Perfect Loop, LM, Loop and Handle, seteach

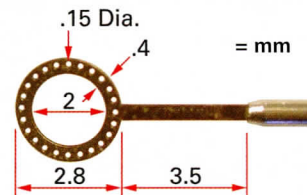
13061 Perfect Loop, LM, Loop onlyeach

13062 Perfect Loop, LM, Handle onlyeach

■ Perfect Loop for Ultramicrotomy



Helpful in transferring your sections from the trough onto the grid without creases. Loop thickness is .05mm (.02") made from stainless steel. Handle is aluminum with an anodized aluminum slip lock, 150mm long x 4.7mm dia. (5.9" x .187"). Very lightweight.



picking up sections



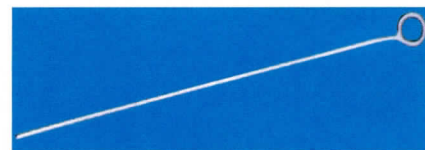
Perfect Loop, EM

13064 Perfect Loop, EM, Loop and Handle, seteach

13065 Perfect Loop, EM, Loop onlyeach

13066 Perfect Loop, EM, Handle onlyeach

■ Calibrated Loop



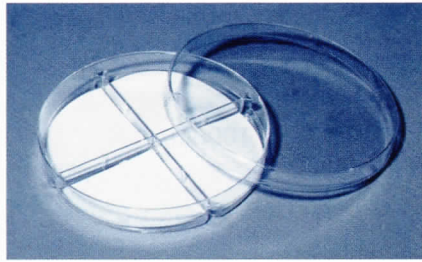
The 0.001ml loops are made from 26 gauge B&S platinum with 15% iridium.

13066 Calibrated Loop, 0.001 ml, 1.45mm dia., 70mm Leach

Petri Dishes

■ Quadrant Petri Dishes & Paper

Quadrants *EM storage; polystyrene*



The plastic petri dishes are divided into quadrants and are furnished with filter paper segments. They are used as containers for short time storage of grids between different steps of specimen preparation, as a receptacle for

ready-to-use glass knives, for block storage and for small EM parts in general. Packaging is 100 dishes (2 part sets, base and lid) with 400 filter paper segments. Outside dimensions: 90mm dia. x 15mm H; inside dimensions: 88mm dia. x 12mm H (with lid on). *courtesy Robert Bils*

14011 Quadrant Petri Dishes with Filter Paper . . .pkg/100

14013 Filter Paper Segmentspkg/400

■ Disposable Polystyrene Petri Dishes

available in round or square, sterilized in packages of 20, 100 or case of 500.

Round - Plain sleeves of 20 two-part sets (base and lid) Outside dimensions: 100mm dia. x 15mm H; inside dimensions: 88mm dia. x 12mm H (with lid on).



14001 Disposable Petri Dishes, roundpkg/20

Square

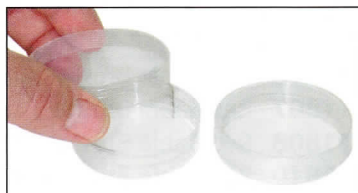
Free from optical distortion and sterile. These dishes are ideal for phage typing, susceptibility testing, plate counts and probe assays. Each 13mm grid is marked numerically in one direction and alphabetically in the other. Four venting ribs on the underside of the lid prevent condensation build-up. Plain sleeves of 10, 10 sleeves (100) per package. Two-part sets (base and lid)



14008 Disposable Petri Dishes, square with grid .pkg/100

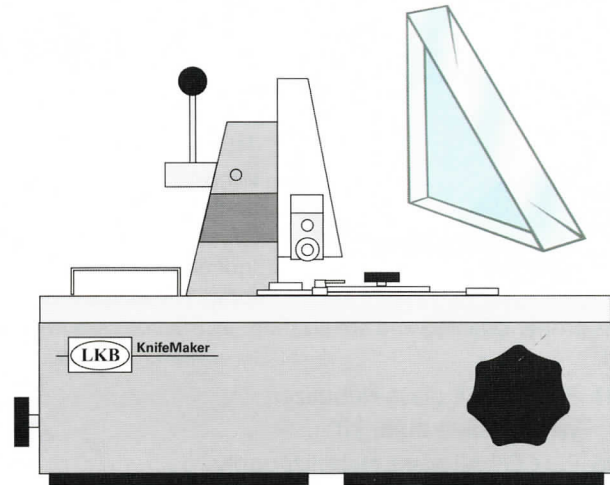
■ Polypropylene Petri Dishes

Suitable for use in the Microwave Systems. Very sturdy. Bottom inside dimensions: 50mm dia. x 12mm deep
Lid inside dimensions: 56mm dia. x 10mm deep



36135 Polypropylene Petri Dishes, 50mm ID x 12mm Hpkg/100

■ Overhaul Your Classic LKB KnifeMaker



We will clean it, replace the scoring wheel, adjust it and return it to you in approximately one week.

For this small investment, you can get your old Classic KnifeMaker back in A-1 condition. If you use glass knives for trimming, thick or ultrathin sectioning, you deserve the best knives you can get. Allow us to put life back into your KnifeMaker. Models serviced are: LKB 7800, LKB 7801, LKB 2178, and Reichart-Jung Knife-Maker. Since many customers do not have the original packaging for this equipment, we have devised a special crate for shipping us the unit and for getting it back to you in pristine condition. Ask our customer service representative for shipping costs. This is an overhaul service. Repair and replacement of other parts are not included.

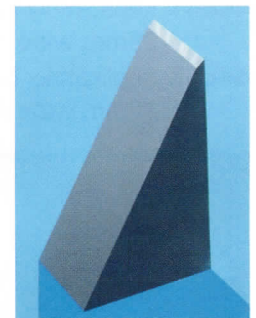
7800 LKB KnifeMaker Overhaul (shipping not included)each

■ Tungsten Carbide Knives

For sectioning hard samples, GMA, Epoxy resins
Sample preparation for microscopy

Triangular design

Will fit all ultramicrotomes with glass knife stages. Section samples that will destroy glass knives and disposable steel knives. Able to section larger specimens than possible with diamond knives. Sections hard specimens like bone and teeth and other difficult samples.



Economical

Tungsten Carbide Knives are a fraction of the cost of diamond knives and are more durable than all other knives.

Knife Specifications

Material: tungsten carbide steel
Edge length: 9.6mm ($\frac{3}{8}$ "")
Height: 25.4mm (1")
Angle: 40°

121-50 Tungsten Carbide Knivespkg/3

■ PELCO® All-glass Nebulizer



Atomizes very small aqueous volumes to provide distribution of suspensions, particulates, etc., for detailed examination. In EM work a grid is held vertically before the Nebulizer outlet and a flexible bulb is squeezed to create a fine spray. The all-glass design

permits proper cleaning and sterilization. Instructions are included.

- 14601** PELCO® All-glass Nebulizer, with flexible bulb, kiteach
- 14606** PELCO® All-glass Nebulizer onlyeach
- 14609** Flexible Bulbeach

■ Replication Materials



Cellulose acetate tapes and sheets are available in several sizes. They soften in acetone and can be applied to a surface which has been wet with acetone. They are stripped off when dry. Thicknesses of 22 or 35µm are used for finer detail replication. Triafol, a thicker (100µm) replicating sheet, is suitable for replicating rough surfaces. Triafol is an acetobutyrate film soluble in methylene chloride or acetone.

Cellulose Acetate Replicating Tapes, 22 to 125µm Thick ⓘ

- 44840** Replicating Tape, 22µm, 25mm wide x 4.5m longeach
- 44841** Replicating Tape, 38µm, 25mm wide x 4.5m longeach
- 44858** Replicating Tape, 125µm, 19mm wide x 4.5m longeach



Cellulose Acetate Replicating Tapes, 22 to 125µm Thick ⓘ

- 44842** Replicating Sheet, 22µm, 127mm x 127mmpkg/20
- 44846** Replicating Sheet, 35µm, 150mm x 100mmpkg/20
- 44848** Replicating Sheet, 50µm, 150mm x 100mmpkg/20

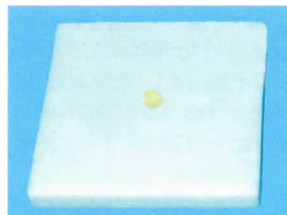
ⓘ = Tech Note on web page

- 44847** Replicating Sheet, 75µm, 150mm x 100mmpkg/20
- 44854** Replicating Sheet, 125µm, 150mm x 100mmpkg/20
- 44856** Replicating Sheet, 180µm, 150mm x 100mmpkg/20

Acetobutyrate (Tacphan) Replicating Sheets, 100µm Thick ⓘ

- 44848-2** Replicating Sheet, Tacphan, 100µm, 150 x 150mmpkg/20

■ White Tile



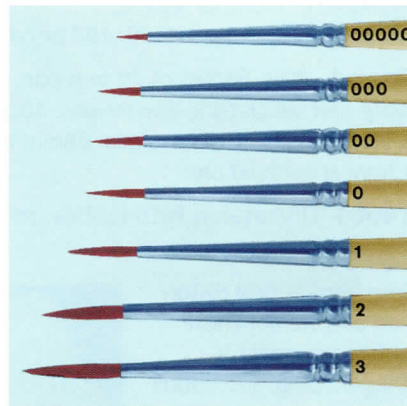
White tile for use in vacuum chamber with drop of oil to indicate carbon thickness by the shade of darkness where there is no oil. Also an excellent background for handling specimens. 47.6mm square.

- 44850** White Tile Monitoreach

■ Red Sable Brushes

For precise manipulation of TEM specimen grids and samples, dusting of SEM samples and photographic materials or photographic spotting. Sable hairs are springy and relatively fine, which gives them a special place in the microscopist's tools armory. Length of hairs are short for better manipulation.

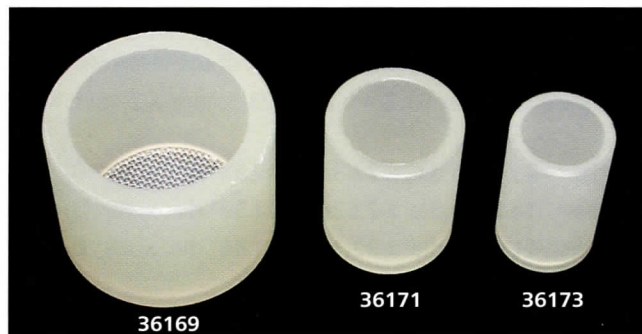
Enameled wood handles and seamless nickel ferrules. Offered in packages of 3 brushes.



Prod. No.	Brush Number at Ferrel	Brush Width at Ferrel	Brush Length
11806	#00000	0.8mm	4.0mm
11807	#000	1.0mm	6.0mm
11808	#00	1.0mm	7.0mm
11810	#0	1.3mm	8.0mm
11812	#1	1.5mm	9.5mm
11814	#2	1.8mm	11.5mm
11816	#3	2.0mm	13.0mm

- 11806** Red Sable Brushes, #00000pkg/3
- 11807** Red Sable Brushes, #000pkg/3
- 11808** Red Sable Brushes, #00pkg/3
- 11810** Red Sable Brushes, #0pkg/3
- 11812** Red Sable Brushes, #1pkg/3
- 11814** Red Sable Brushes, #2pkg/3
- 11816** Red Sable Brushes, #3pkg/3

■ PELCO Prep-Eze™ Individual Wells



Great for processing individual specimens or keeping specimens separate from others. Same wells as used in the Wellplate Inserts on next page but on an individual basis. Made entirely from polypropylene.

- 36169** Individual Well, 24.1mm dia x 22.3mm D, 420µm opening screen, all polypropylene . . .each
- 36171** Individual Well, 14.2mm dia x 22.3mm D, 420µm opening screen, all polypropylene . . .each
- 36173** Individual Well, 11.2mm dia x 22.3mm D, 420µm opening screen, all polypropylene . . .each

■ Polypropylene Petri Dishes



- Suitable for use with PELCO Prep-Eze™. Very sturdy.
- Bottom inside dimensions: 50mm dia. x 12mm deep.
- Lid inside dimensions: 56mm dia. x 10mm deep

36135 Polypropylene Petri Dishespkg/100

■ PELCO Prep-Eze™ Round Tissue Holders

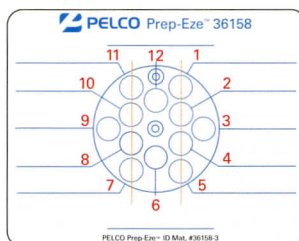
The specimen holders accommodate 6 or 12 specimen batches from fixation through resin infiltration and are suitable for microwave or bench processing. They eliminate handling and save time and reduce the amount of costly chemicals. The holders fit our 36135 Polypropylene Petri Dishes.

The outside dimensions of the holders are: 50.8mm diameter x 19mm (44.5mm with handle), (2" dia. x .75" H [1.75" H with handle]).

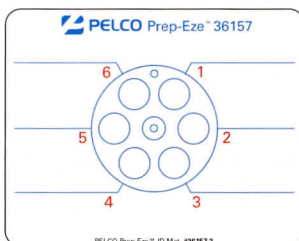
No. 36157-1 has 6 wells, 12.7mm dia. x 17mm D (.5" dia. x .67" D).

No. 36158-1 has 12 wells, 9.5mm dia. x 17mm D (.375" dia. x .67" D).

The mesh openings are 420µm. The small hole is intended to receive the temperature probe while processing tissue in the microwave. Numbered mats, available for both sizes, are plastic laminated to resist chemicals and can be written on with a marker. With the holder placed on the mat, identification of specific wells is easy. The kits include one specimen holder, one ID mat and 20 polypropylene petri dishes (52 x 12.5mm high, Prod. No. 36135) suitable for use in the microwave.



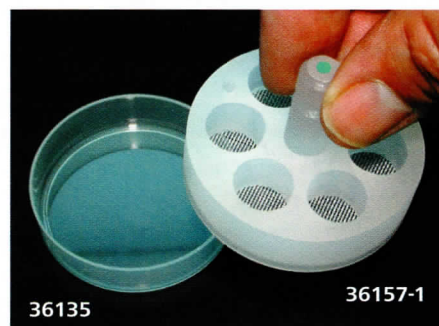
PELCO Prep-Eze™ 12-well ID Mat



PELCO Prep-Eze™ 6-well ID Mat



PELCO Prep-Eze™ 12-well Holder



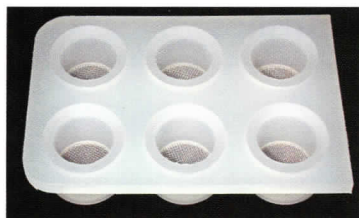
PELCO Prep-Eze™ 6-well Holder being placed into a Polypropylene Petri Dish

6-well Holder

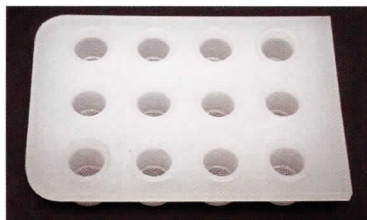
- 36157** PELCO Prep-Eze™ 6-well Kiteach
- 36157-1** PELCO Prep-Eze™ 6-well Holdereach
- 36157-3** PELCO Prep-Eze™ 6-well ID Matpkg/3

12-well Holder

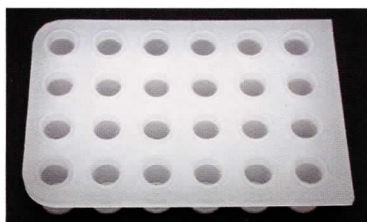
- 36158** PELCO Prep-Eze™ 12-well Kiteach
- 36158-1** PELCO Prep-Eze™ 12-well Holdereach
- 36158-3** PELCO Prep-Eze™ 12-well ID Matpkg/3



36168 PELCO Prep-Eze™
6-wellplate Insert



36170 PELCO Prep-Eze™
12-wellplate Insert



36172 PELCO Prep-Eze™
24-wellplate Insert



36168-6 6-cavity Costar® Tissue
Culture Plate



36170-12 12-cavity Costar® Tissue
Culture Plate



36172-24 24-cavity Costar® Tissue
Culture Plate

■ PELCO Prep-Eze™ Rectangular Wellplate Inserts

These rectangular polypropylene wellplate inserts have 6, 12, or 24 wells and will fit into the Corning Costar® Tissue Culture Plates (below right) which is the standard 6/12/24 wellplate design. A 420µm opening, polypropylene mesh is at the bottom of each of the insert wells.

The outside dimensions of the wellplate inserts are: 81.3mm W x 123.5mm L x 2.4mm H (3.2" W x 4.86" L x .88" H).

Well dimensions of 6-wellplate inserts: 24.1mm dia. x 22.3mm D (.95" dia. x .88" D)

Well dimensions of 12-wellplate inserts: 14.2mm dia. x 22.3mm D (.56" dia. x .88" D)

Well dimensions. of 24-wellplate inserts: 11.2mm dia. x 22.3mm D (.44" dia. x .88" D)

■ PELCO Prep-Eze™ Ordering Information

36168 PELCO Prep-Eze™ 6-Wellplate Inserteach

36170 PELCO Prep-Eze™ 12-Wellplate Inserteach

36172 PELCO Prep-Eze™ 24-Wellplate, Inserteach

Replacement Mesh

36168-16 6-Well Insert (or 24.1mm dia.) Replacement Mesh, 840µmpkg/30

36168-15 6-Well Insert (or 24.1mm dia.) Replacement Mesh, 590µmpkg/30

36168-8 6-Well Insert (or 24.1mm dia.) Replacement Mesh, 420µmpkg/30

36170-14 12-Well Insert (or 14.2mm dia.) Replacement Mesh, 420µmpkg/36

36170-24 24-Well Insert (or 11.2mm dia.) Replacement Mesh, 420µmpkg/48

■ Corning Costar® Tissue Culture Plates

Tissue Culture-treated Plates are designed for a wide range of applications including general cell growth experiments, cloning studies, virus isolation and in vitro testing.

Plate bottoms are of a uniform thickness, allowing for distortion-free observation. Alphanumeric coordinates are placed on the same focal plane as cell growth, for convenient referencing of cell position. Gripping edges make handling easier.

All plates have non-reversible covers with condensation rings to minimize evaporation and the risk of contamination.

Plates are made of optically clear, medical-grade polystyrene and are used for processing of tissue on the bench or in the microwave. The corresponding Wellplate Inserts (see above) are No. 36168 for the 6 cavity, No. 36170 for the 12 cavity, and No. 36172 for the 24 cavity.

■ Corning Costar® Tissue Culture Plates Ordering Information

Prod No.	No. of Wells	Well Dia.	Well Growth Area	Total Well Volume	Working Volume	Pkg
36168-6	6	35mm	9.5 cm ²	15 ml	10 ml	case/50
36170-12	12	32.6mm	3.8 cm ²	3 ml	3 ml	case/50
36172-24	24	16mm	1.9 cm ²	2 ml	2 ml	case/50

More TC Plates on page 290