ESD Static Control Products

Available From:

7331A Garden Grove Blvd
Garden Grove, Ca 92841

Toll Free **(800) 776-9888** USA/ Canada

info@esd.tv
www.esd.tv

Fax 1-714-891-0321

ESD Safe

Prices Subject to Change

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Reliable ESD Products

TopLine offers a full range of Elme Static Control products including shoes, clothing, wrist-straps, bench mats, brushes, chairs, flooring and much more.

When Elme asked TopLine to distribute their full line of ESD Static Control Products in North America, we thought it would be a good partnership. But it wasn't until we fully studied Elme's complete product line that we realized that Elme is a cut above the rest. Elme blends the finest materials with creative engineering to achieve maximum comfort and safety. Elme knows how important it is for products to feel good. That's why Elme's design team, based in Milan Italy, spends years to make each product just right. Elme has manufactured ESD products for 30 years with satisfied customers throughout Europe. The complete line of Elme ESD Static Control products are available from TopLine throughout the USA, Canada and Mexico.

Who is Elme?

Elme, based in Milan Italy, has manufactured ESD products for 30 years with wide acceptance by major customers throughout Europe.

Responsive Customer Service

Whether you require special size table mats or extra small lab jackets, Elme does it efficiently and routinely. Tell us about your custom projects and special designs.

Safety First

For years, Elme has produced ESD products that are long lasting, safe and ergonomically consistant with the needs of people. This means that Elme uses the best materials that are non-allergic. Elme does not cut corners when it comes to providing quality products!

How to Order

TopLine
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Garden Grove, Ca 92841 USA
email: info@esd.tv website: www.esd.tv
Toll Free USA / Canada: **(800) 776-9888**
Fax 1-714-891-0321

We accept credit cards:

ESD "JS" Lab Chairs

Comfortable ESD Lab Chairs Polished Base. Wide Seat/Backrest. Adjustable Height 18" to 22"

(450mm to 580mm)

Elme *VERA-JS1*

Order Nr. 873002 with self-braking castors
$269.00 (Quantity Discounts Available)

Shipping Box: 10" x 24" x 25"H (25x60x64cm)
Shipping Weight: 28-lbs (12kg)

Comfortable ESD Lab Chairs Polished Base. Wide Seat/Backrest. Adjustable Height 26" to 31"

(650mm to 780mm) **with foot rest**

Elme *VERA-JS2*

Order Nr. 875002 with self-braking castors
$299.00 (Quantity Discounts Available)

Shipping Box: 10" x 24" x 25"H (25x60x64cm)
Shipping Weight: 32-lbs (14kg)

Fabric Surface Resistance: $1x10^5 < R < 8\ x10^5$
Resistance to Ground: $1x10^5 < R < 1\ x10^6$

General Description: Elme VERA JS ESD chairs eliminate tribocharging and provide continuous drainage of static to ground. Meets requirements of ESD standards IEC 613450-5-1 and ESDA 2020. Lined with soft, durable non-flammable ESD fabric. Features ergonomic seating, adjustable backrest, extra wide seating area, height adjust and polished aluminum base. Dark grey fabric.

Ergonomic Design: Complies with standards on ergonomic and safe seating. The contour of the backrest floats and maintains continous contact with the movement of the operator. The seat is designed to maintain good posture. Both seat and backrest are cushioned with soft, comfortable lining. No metal in the fabric avoids short circuits between the fabric and the operator for safety.

Important Features: Lever actuated pneumatic seat height adjustment. Inflammable textile, withstanding burns from irons or cigarettes, prolonging durability of the chair. No metal in the fabric, increasing safety and preventing short circuits between the fabric and the operator. Rear of backrest has totally safe, ESD conductive plastic cover. Self-braking conductive castor wheels prevents accidental skids. No need for a grounding chain. Footrest is chrome plated.

Chair Accessories

ESD SEAT COVERS
Converts Standard Chairs into ESD Chairs

Elme *SIT-COVER*

Order Nr. 878000
$75.00 (Quantity Discounts Available)
Shipping Weight: 2-lbs (1kg)

Strong grey static-dissipative fabric seat covers designed to convert standard laboratory chairs into ESD safe ones. Easily adjusts using elastic draw-strings. Fits all production and lab type chairs. The 4 piece set includes backrest cover, seat-cover, back-to-seat connections (cord #603) and grounding cord (#608) with 1M ohm resistor. ESD seat-covers are a low-cost alternative to ESD chairs.

Spare parts for ESD Lab Chairs

Resistance to ground $0.5 < R < 1.0 \times 10^6$ ohm

Elme *VERA ROT SE* Order Nr. 876100 Set of 5 castors $75.00
Conductive self-braking castors wheels.

Self-Braking Advantage: Unoccupied chair stays in place to protect people from accidentally sliding/slipping as they sit down. After sitting, the brake releases and allows safe movement. Standard on all Elme VERA K and VERA JS and CLEAN Room chairs.

Elme *VERA FOOT* Order Nr. 876200 Set of 5 gliders $40.00
Conductive glider feet

Elme *VERA EXTENSION SET* Order Nr. 876400 $40.00
Converts any low VERA K1 / JS1 chair into a tall VERA K2 / JS2 chair. Includes chrome plated footrest and extension tube. Easy to install.

Soft Touch ESD Knitted Gloves

Elme *GNC 9003*

Order Nr. 826201- Small
Order Nr. 826202 - Medium
Order Nr. 826203 - Large
$9.00 Pair (Quantity Discounts Available)

GNC 9003 Elastic knitted cotton gloves with conductive woven fabric. Seamless for reduced finger fatigue and improved grip, even on small components. Static charge is drained to ground directly from the skin of the operator. Unique sheer fabric blend offers excellent transpiration, long life and extended comfort for hours. Natural fabric blend: 80% knitted cotton - 20% conductive fiber.

Antistatic Cotton Gloves

Elme *GNB*

Order Nr. 824002 - Medium
Order Nr. 824003 - Large
$1.75 Pair (Quantity Discounts Available)

GNB cotton gloves minimizes static generation while enabling operator precise handling of ESD sensitive components. Elastic, breathable and comfortable. Long-life and durable.

Finger Fitted Rubberized Knitted Gloves

Elme *GNC RUBBER*

Order Nr. 826101 - Small
Order Nr. 826102 - Medium
Order Nr. 826103 - Large
Order Nr. 826104 - XL
$9.00 Pair (Quantity Discounts Available)

GNC RUBBER tricot cotton knitted persirant fabric glove with rubber finger tips for handling components and boards. Best grip and perforation resistance. Static charge is drained to ground directly from the skin of the operator. Long life and comfort even after hours of wearing.

ESD Lab Coats

Natural Cotton Fabric
Soft and Comfortable
Washable

Long Coat
Short Smock

White or Blue
Coming Soon Green Color

All have 3 pockets
ESD Symbol

$40.00 Any Size

Size	Order Number			
	White		**Blue**	
	Short Smocks	Long Coats	Short Smocks	Long Coats
	Elme *PEQ905W*	Elme *PEQ909W*	Elme *PEQ905B*	Elme *PEQ909B*
XS	819001	817001	820001	818001
S	819002	817002	820002	818002
M	819003	817003	820003	818003
L	819004	817004	820004	818004
XL	819005	817005	820005	818005
XXL	819006	817006	820006	818006

About: PEQ 905/909 coats are made with conductive fiber (96% cotton and 4% Conductive Fiber) for durability while allowing the coat to efficiently drain static charge from the operator's body to ground. Maintains excellent ESD features even after repeated washings. All PEQ coats and smocks have 3-pockets. Meets or exceeds ESD standards. No tribocharging. Acts as an ESD Shield, covering street clothes, preventing uncontrolled discharge. Does not generate static charges.

Comfort: PEQ905/909 coats are manufactured with select natural cotton fabric materials, allowing prolonged wearing while maintaining a transpirant soft touch for maximum comfort. Breathable. The 4% conductive carbon fiber completely covers 1% nylon filament. Nylon will not contact skin, even after repeated washings.

Washing Instructions: Dry Cleaning (suggested) with Perchloroethylene only. Light ironing permitted. Laundry maximum water temperature should not exceed 86°F (30°C). Use only neutral cleaners. Hang dry at room temperature. Never tumble dry. Light ironing permitted. Withstands frequent washings, without loosing its ESD properties.

Coming Soon !
PEQ915 VERDE
New Green Color for quick indentification of Lead Free process line.

Great for Warm Weather
ESD Natural Fabric

Washable

Elme *T-9000-SS*

Your Company Logo Available.

ESD T-Shirts are designed for operators working in Electrostatic Protected Areas (E.P.A). Made with ESD elastic shielded natural cotton fibers. May be used as outer wear or as an under garment. Special material blend ensures lightness, good transpiration, added comfort and soft contact with the skin. Will not loose ESD properties even after repeated washings.

$36.00 Any Size

Order Number	
S	821002
M	821003
L	821004
XL	821005
XXL	821006

Blue shirt, Gray Collar. ESD Symbol

Elme *POLO-9000-LS*

Your Company Logo Available.

Washable

ESD POLO Shirts are made with ESD elastic shielded natural cotton fibers. Stylish. Special material blend ensures lightness, good transpiration, added comfort and soft contact with the skin. Will not loose ESD properties even after repeated washings.

$40.00 Any Size

Order Number	
S	821502
M	821503
L	821504
XL	821505
XXL	821506

ESD Sweatshirt Pullover

Washable

Elme *PULLOVER*

Blue color
Zipper Closure

$99.00 Any Size

Order Number	
S	821702
M	821703
L	821704
XL	821705

The PULLOVER is a warm and comfortable sweat shirt for colder climates. Manufactured with 90% ESD safe cotton, 7.5% Polyester and 2.5% shielded carbon fiber fabric blend. Ensures continuous and effective drainage of all static charges to ground. Long Sleeve. 2 Pockets. Elasticized cuffs. Zipper closure and ESD symbol.

Foot Grounders

Velcro Release

STV-U-1R-VELCRO

Order Nr. 828500
$7.50 each

Features:
1M ohm Resistor
Rubber Cup
Velcro Release

Velcro conductive footgrounder with 1M Ohm safety resistor combines excellent durability and flexibility. The velcro closure enables the operator quick fastening and size adjustment. Easy release. Comfortable. Conductive Rubber will not tear.

STV-U-1R-VERDE

Order Nr. 828503
$7.50 each

Features:
1M ohm Resistor
Rubber Cup
Velcro Release

New Green flourescent high-visibility color heel grounder with 1M Ohm safety resistor. For quick identification of operators in the designated Lead Free production area.

Velcro Release - Premium Model

Elme *STV-U-2R-EL*

Order Nr. 828600
$9.00 each

Features:
2M ohm Resistor
Elastic Heel Strap
Velro Release

Reinforced elastic back heel band. Better than rubber. Velcro conductive footgrounders with 2M Ohm safety resistors yields total of 1M Ohm resistance when both feet are standing. Combines excellent durability and flexibility. The velcro closure enables the operator quick fastening and size adjustment. Easy release. Comfortable.

Disposable - One Time Use

Elme STV ONE SHOT

Order Nr. 828100
$75 pack of 100 strips

Features:
Resistance: $10^5 \sim 10^6$ ohm
Size: 12" x 0.6" (300 x 15mm)
Material: Non-Woven
Self Adhesive Portion:
3.75" (95mm) for heel attach.

Quick Solution for visitors entering the Electrostatic Protected Area (EPA). To use, just peel conductive strip from the sheet and attach one end to the heel of your normal street shoe. Then tuck the other end inside the shoe. Quick. Comfortable. Effective. Does not leave residue. Static charges drain from the body to ground continously.

ONE TOUCH BAND
The Most Comfortable ever

Elme *One Touch Band / 4*
Order Nr. 871000 with 4mm stud
$7.50 (Quantity Discounts Available)

- Anatomic curved buckle contours wrist
- Totally non allergenic materials
- No carbon or steel in the elastic band
- Very soft. No sharp edges. No pinched hairs.
- No colorants on the skin.
- Band does not float on wrist.

The ONE TOUCH out performs all existing ESD wristbands on the market. It's exclusive curved anatomic buckle contours to your wrist and has no sharp edges. No metal touches your skin. Ensures continuous and good electrical contact with the skin. There are no colorants in the strap, so no markings are left on the skin. The soft elastic band is insulative on the outside and conductive on the inside. The ONE TOUCH allows one simple touch to fasten. One quick touch to release. Fits any wrist size without stressing the elastic band, even with repeated use over time. Maximum Strap Diameter: Stretched 4.75" (115mm). Minimum Diameter: 1.0" (25mm).

Coming Soon !
One-Touch VERDE
Order 871003
New Green Color for quick indentification of Lead Free process line.

STRAPPO
Comfort, at low price

Elme *STRAPPO*
Order Nr. 871400 with 4mm stud
$6.00 (Quantity Discounts Available)

- Comforable and economical
- Totally non allergenic materials
- No carbon or steel in the elastic band
- No colorants on the skin.
- Very soft. No sharp edges. No pinched hairs.
- Velcro release

STRAPPO combines comfort and economy with a soft band in touch with the skin. No plastics. No metals. No hard surfaces and no sharp edges. The inside layer of the soft elastic band is highly conductive, while the outside is totally insulative. The specially formulated conductive fiber is non allergenic and will not loose its ESD features, even with daily usage. A strong Velcro closure perfectly adjusts to any wrist size without stressing the elastic band. STRAPPO is soft, easy and comfortable. Maximum Strap Diameter: Stretched 5" (125mm). Minimum Diameter: 1.75" (45mm).

ESD Brushes

About ESD Brushes

ESD Brushes eliminate tribocharging while cleaning boards during rework or assembly. These brushes do not generate static. Use for solder removal, dusting, dirt removal, flux removal, static dissipation, wiping and general cleaning.

Elme *EB-06*

Order Nr. 811006

$8.00 (Quantity Discounts Available)

Mini brush with conductive tubular metal handle and black conductive fiber bristles. Handy for dispensing flux on component leads during rework. Does not cause abrasion. Handle Length 3.75" (95mm). Bristle area .078" x .25" (2 x 6mm). Bristle Length: .43" (11mm)

Elme *EB-1*

Order Nr. 811001

$10.00 (Quantity Discounts Available)

Conductive black fiber brush for cleaning with conductive tubular metal handle. Handle Length 5.25" (135mm). Bristle area .43" x .2"(11 x 5mm). Bristle Length: .75" (20mm)

Elme E*B-WA*

Order Nr. 811002

$8.00 (Quantity Discounts Available)

Heavy duty conductive brush with conductive plastic handle and synthetic conductive bristles for cleaning residues. Handle Length: 5.6" (142mm). Bristle area: .87"x .4" (22mmx10mm). Bristle trim length .5" (12 mm)

Elme E*B-30*

Order Nr. 811030

$8.00 (Quantity Discounts Available)

Conductive "tooth brush" style with conductive plastic handle. Length 7.5" (190mm). Bristle area: 1.375" x .312" (35mm x 8mm). Bristle trim length .5" (13mm)

ESD Brushes

Elme *EB-NAIL*

Order Nr. 811004

$16.00 (Quantity Discounts Available)

Conductive "nail scrub brush" with conductive plastic safety handle and conductive synthetic bristles. Bristle area: 3.0" x 1.0" (76mm x 25mm). Bristle Length .5" (13mm)

Elme E*B PRO*

Order Nr. 811300

$35.00 (Quantity Discounts Available)

Larger size version of the EB NAIL brush with conductive plastic handle and black conductive fiber bristles. Ideally designed for large area dust and residue removal. Base Length 4.0" (100mm). Bristle area 3" x 1.6" (80 x 40mm). Bristle Length: 0.75" (20mm)

Elme *EB-200*

Order Nr. 811200

$35.00 (Quantity Discounts Available)

Large Conductive scrub brush with safety conductive plastic handle and conductive synthetic bristles. Removes aggressive residues. Dimensions 6"L x 1.75"W (150 x 45mm). Bristle length 1" (25mm)

Elme *EB SOFT*

Order Nr. 811400

$35.00 (Quantity Discounts Available)

Conductive plastic handle and synthetic conductive fiber bristles. Specifically designed as a softer touch dust removeall brush. Looks like a paint brush. Removes dust without causing abrasion on the surface. Not inteded for harsh residue. Brush Length 7.0" (175mm). Bristle area 2.5" x 0.4" (60 x 10mm). Bristle Length: 1.125" (30mm)

Removable Floor Mats

ESD Removable Floor Mat Non-Glued Installation

Elme *749 DUO ROLL*

Order Nr. 823000
$1500 FOB Milan

Quantity Discounts Available
75" x 33ft (1.9m x 10m)
0.1" thick 2.5mm
Weight 175-lbs (75Kg) per roll

General: New double layer structure. Upper layer is static dissipative and bottom layer is conductive. Perfect combination for Electrostatic Protected Areas (E.P.A). Ensures continuous and effective drainage of static charge to ground from operators and equipment. The 749 DUO does not require glue. Just lay on the floor, connect a grounding cord and ready to use. Cut as required for floor mats under work benches. Withstands high temperature up to 400°C. Resistance to Ground $4x10^8$ to $8x10^8$.

Color: Standard dark grey color with speckled, non-reflecting embossed surface to minimize wear.

Roll size: 75" x 33ft (1.9x10m). Weighs 175 pounds (76kg). The shipping carton of the roll measures approximately 11" (27cm) diameter x 6.25ft (1.9mm) long. Matt thickness is .1" (2.5mm)

Single Floor Mat Kit

Elme *749 DUO KIT*

Order Nr. 840000
$250 (Quantity Discounts Available)

20-lbs (9kg)

The kit includes:

- 4ft x 6ft (1.2m x 1.9m) gray floor mat with two 10mm ground studs.
- Ground cord (model 601) with 5mm ring end and 1M ohm resistor 10ft (3m)

Corridor Floor Mat Kit

Elme *749 DUO RUNNER KIT*

Order Nr. 840100
$300 (Quantity Discounts Available)

32-lbs (15kg)

The kit includes:

- 3ft x 10ft (0.9m x 3m) gray floor mat with two 10mm ground studs.
- Ground cord (model 601) with 5mm ring end and 1M ohm resistor 10ft (3m)

Permanent Flooring

ESD Permanent Installation or Semi-permanent Install with double sided carpet tape.

Elme *749-DUO ROLL*

Order Nr. 823000
$1500 FOB Milan

Quantity Discounts Available
75" x 33ft (1.9m x 10m)
0.10" thick 2.5mm
Weight 175-lbs (75Kg) per roll

See page 14 for details about the 749-DUO ROLL

Permanent Installation: Lay copper tape and glue on the base floor.
Semi-Permanent Installation: Lay copper tape and double sided carpet tape instead of glue.
Removable Installation: 10mm studs with grounding cords to earth ground. No glue required.

Self Adhesive Copper Tape

Elme *749-B*

Order Nr. 822020
$50.00 per roll

6-oz (160g)
Self Adhesive Copper Tape
Roll 5/8-inch x 50ft (10mm x 16.5m)

Grounding should be made by a qualified electrician.

Use 1-roll of copper tape for each 749 DUO ROLL.
Lay copper strip down the middle (horizontally) of the flooring. Cross copper in vertical direction every 15ft (5m).

For large installations over 400 Sq. Ft (40 Sq M) recommended to provide 2 earth grounding points. For small installation, only 1-earth grounding point is required.

Apply the copper tape directly to the sub floor.
Brush top of copper tape with wet adhesive.

Polyurethane Conductive Glue

Elme *749-C1*

Order Nr. 822030
$200.00 per can

Can size 8" dia x 12" H
10-lbs (5Kg)

Polyurethane based conductive glue for application on subfloor side. Consumption is about 2 cans per roll of flooring. Two-part mix bonding.

ESD Bench Mats
Rolls 48" x 33ft (1.2m x 10m)

Elme *157-ROLLS-* *BLUE*
Order Nr. 833000

Elme *157-ROLLS-* *BEIGE*
Order Nr. 833001

Elme *157-ROLLS-* *GREY*
Order Nr. 833002

$850 per roll (Quantity Discounts Available)

Elme *157-ROLLS-* *Green* *(new!)*
Order Nr. 833003
Use Green Mats for Quick Indentification of Lead Free Line.

Specifications:

- Resistant to 440°C
- PVC free
- No chlorine - No noxious outgassing
- Flame resistance
- Drains static charges through the bottom layer
- Resistant to chemicals
- Resistant to ageing test performed
- Colors: blue, beige, grey or green

- Thickness: 80 mils (2mm)
- Roll size: 4ft x 33ft (1.2m x 10m)
- Shipping box: 9" Dia x 4ft (22cm x 1.2m)
- Net Weight: 80-lbs (36Kg)

Double layer ESD rubber bench mats are designed to cover tables and shelves. The colored upper ply is static dissipative and the bottom black layer is conductive. *The* best bench mat available.

Custom cut sizes available

Bench Mat Kits

ESD Bench Grounding Kits
Everything you need

Blue Mat Standard Color

The 157 Kits include:

- Bench mat with rounded corners.
- 10mm grounding studs.
- Includes high quality ONE TOUCH wristband.
- Coiled ground cord for wristband.
- Earth ground cord with 1M ohm resistor.

Elme *157 KIT 4060*

Order Nr. 836000 **Blue**
Order Nr. 836001 **Beige**
Order Nr. 836002 **Grey**
Size 16" x 24" (400 x 600mm)
$55.00 (3.5 lbs 1.6kg)
Quantity Discounts available

Elme *157 KIT 60120*

Order Nr. 838000 **Blue**
Order Nr. 838001 **Beige**
Order Nr. 838002 **Grey**
Order Nr. 838003 **Green** Pb
Size 24" x 48" (600 x 1200mm)
$95.00 (6 lbs 2.7Kg)
Quantity Discounts available

Elme *157 KIT 6090*

Order Nr. 837000 **Blue**
Order Nr. 837001 Beige
Order Nr. 837002 **Grey**
Order Nr. 837003 **Green** Pb
Size 24" x 36" (600 x 900mm)
$75.00 (4 lbs 1.8Kg)
Quantity Discounts available

2x Corner Ground Studs on 4060.
3x Corner Ground Studs on 6090 and 60120

These kits provide a turn key solution for installing a complete ESD workstation.

Universal Shipping Box Size: 4"x4"x24"
(10cm x10cm x 60cm)

ESD Combo Floor + Bench Mat Kit

Elme *157 + 749 DUO*

Order Nr. 839000
$300.00

25-lbs (11kg)

The 157 + 749 DUO Kit include:

- Blue bench mat 24"x36" (600x900mm) with three 10mm ground studs
- Grey Duo Floor Mat 4ft x 6ft (1.2m x 1.9m) with two 10mm ground studs
- High quality ONE TOUCH wristband.
- Coiled ground cord for wristband.
- Two ground cords (601) with 1M ohm Resistor.

Ground Cords

About Ground Cords

All ground cords meet both IEC and EOS/ESD standards for endurance, electrical resistance and reliability. Keeps shape, day after day. Quantity discounts available.

Coiled Retractable For wrist bands: 1M Ohm Resistor:

	From	To	Length	
Elme *1502-2 WIRE BANANA / 15-4* 4mm Snap to Banana/Alligator Order Nr. 806000 $7.50	4mm Snap	Banana with Alligator	5ft (1.5m)	
Elme *1502-2 WIRE BANANA / 15-4 VERDE* 4mm Snap to Banana/Alligator Order Nr. 806003 $7.50	4mm Snap	Banana with Alligator	5ft (1.5m)	 New Green Color For Lead Free Line
Elme *1502 WIRE BANANA / 30-4* 4mm Snap to Banana/Alligator Order Nr. 807000 $10.00	4mm Snap	Banana with Alligator	10ft (3m)	
Elme *1502 WIRE BOTTONE/ F15-4* 4mm Wrist Bands to Ground Stud Order Nr. 806200 $7.50	4mm Snap	10mm Snap	5ft (1.5m)	
Elme *1502 WIRE BOTTONE/ F15-4 VERDE* 4mm Wrist Bands to Ground Stud Order Nr. 806203 $7.50	4mm Snap	10mm Snap	5ft (1.5m)	 New Green Color For Lead Free Line
Elme *1502 WIRE BOTTONE/ F30-4* 4mm Wrist Bands to Ground Stud Order Nr. 807200 $10.00	4mm Snap	10mm Snap	10ft (3.0m)	
Elme *1502 WIRE BANANA / F30-10* 10mm Stud to Banana/Alligator Order Nr. 806800 $10.00	10mm Snap	Banana with Alligator	10ft (3m)	

Ground Cords

Interconnecting Cords Without Resistors:

	From	To	Length	
Elme *602 BOTTONE* 10mm to 10mm snap Order Nr. 801602 $10.00	10mm Snap without resistor	10mm Snap	6.5ft (2m)	 Straight Cord without Resistor
Elme *603 BOTTONE* 10mm to 10mm snap Order Nr. 801603 $7.50	10mm Snap without resistor	10mm Snap	7.5" (20cm)	 Straight Cord without

Grounding Cords with 1M Ohm Resistor:

	From	To	Length	
Elme *601-2* Ground Snap to Ring Order Nr. 801601 $10.00	10mm Snap with 1M resistor	5mm Ring	10ft (3m)	 Straight Cord with 1Meg Resistor. Flat for Mats.
Elme *601-BANANA-2* Ground Snap to Banana Order Nr. 801600 $10.00	10mm Snap with 1M resistor	Banana with Alligator	10ft (3m)	 Straight Cord with 1Meg Resistor. Flat for Mats.
Elme *608* Ground Snap to Banana Order Nr. 801608 $10.00	10mm Snap with 1M resistor	Banana with Alligator	10ft (3m)	 Coil Cord with 1Meg Resistor

Ground Cord Adaptors

Adaptors	From	To	
Elme *606 / 10F* Order Nr. 801606 $50.00 pack of 50	Banana	10mm Snap	
Elme *606 RING* Order Nr. 801626 $32.00 pack of 100	Banana	5mm Ring	
Elme *607 COCCO* Order Nr. 801607 $25.00 pack of 25	Banana	Aligator	
Elme *610 UNIV* Order Nr. 801610 $8.00 each	Banana	10mm male Snap to Female snap	male 10mm on top female 10mm on bottom
Elme *605-HAND 10M* Order Nr. 801609 $100.00 each	Tool for Punching 10mm Male snaps		
Elme *605-HAND 10F* Order Nr. 801605 $100.00 each	Tool for Punching 10mm Female snaps		
Elme *604-F4* Order Nr. 801604 $75.00 Bag of 100	4mm Female Snaps. Passivated Nickel Plated Brass.		
Elme *604-M10* Order Nr. 801611 $75.00 Bag of 100	10mm Male Snaps. Passivated Nickel Plated Brass.		
Elme *604-F10* Order Nr. 801612 $75.00 Bag of 100	10mm Female Snaps. Passivated Nickel Plated Brass.		

Field Service Kit

Field Service Kit

Elme *KAS-9000*
Order Nr. 841000
$49.00 (Quantity Discounts Available)

The Kit Includes:

- 24" x 24" (600mm x 600mm) static dissipative mat.
- High Quality *ONE TOUCH* wristband.
- Grounding cords with 1M ohm resistor.
- Aligator clip, snaps and adaptors

Surface Resistance black conductive side = 10^4 Ohm/Sq
Surface Resistance blue dissipative side = 10^{10} Ohm/Sq

How it works:

Unfold the field service mat and connect cords per drawing. Then connect ground cord (#5) to earth ground such the round center contact of a common 120VAC wall socket. If no earth ground is available, attach alligator clip to chassis of equipment you are servicing.

Dissipative blue side and conductive black side combine to provide safe, continuous drainage of static charge to ground. All cords include a 1M ohm safety resistor. The *ONE TOUCH* (#4) is the most comfortable wristband available on the market.

Remove caps before using connector.

Mat expands by opening Velcro pocket

ESD Accessories

ESD Step Stool
Self Locking Brake When Stepped On.

Elme *GABEL*
Order Nr. 810100
$250.00 (Quantity Discounts Available)

Shipping Box: 18"x10"x18"H (45x24x45cm)
Shipping Weight: 13-lbs (6kg)

Metal structure with conductive paint. (10^8 ohm). Light weight, yet incredibly sturdy. Slides easily when unloaded. Thick rubber ring brakes, suspending the castor wheels with as little as 10-lbs (5kg) load. Max weight load 450 Lbs (200Kg). Clean room compatible.

ESD Waste Paper Basket
Safely Store Trash

Elme *BASKET-40*
Order Nr. 810040
$75.00 (Quantity Discounts Available)

Dimensions: 13"SQ Rim x 21"H (9"SQ base)
Volume: 10 Gallons (40 liters)

Heavy duty conductive waste paper basket for office and production areas. Marked with ESD symbol.

BASKET 40L
Order 810040
$75.00
10 Gallon

BASKET 13L
Order 810013
$50.00
3 Gallon

ESD Workstation Footrest

Elme TOPFOOT
Order Nr. 810200
$275.00 (Quantity Discounts Available)

Place under workstation for enhanced ergonomic comfort of the operator. Strong metal contruction. Adjustable height and inclination angle with 9 positions. ESD safe rubber contact surface. Anti-skid rubber feet. Connect to ground via cord with 1Meg Ohm Resistor.

Size: 22"x15" footprint 6"H x (55x39x15cm)
Weight: 18-lbs (8-kg)

Elme *Trucker SS*

Order Nr. 8460xx (see page 29 size chart)

$99.00

Upper:	Suede Leather
Lining:	Coushioned collar
Inner sole:	Static-dissipative
Sole:	Anti slip (EN 13287)
ESD Standard:	IEC 613450-5-1 and ANSI/ESD S2020
Sizes:	Womens 4 to 12.5 Mens 6 to 14 Order with European size 35 to 48

Trucker Boot SS offers ESD protection and safety steel toe cap for inside or outside use in adverse climatic conditions. Resistant to oil and chemicals. Coushioned colar. Anti perforation sole. Reinforced lace eyelets. Rugged, yet lightweight only 1.5-lbs (660gm per shoe). Grey suede leather. Has anatomic, anti-fungal, sweat-free inner sole. Width size to Calzata 11 (Mondopoint). EN 345 ESD and Safety standards. Marked with ESD symbol.

Elme *ECO BOOT SS*

Order Nr. 8470xx (see page 29 size chart)

$99.00

Upper:	Leather
Lining:	Coushioned collar
Inner sole:	Static-dissipative
Sole:	Anti Slip (EN 13287)
ESD Standard:	IEC 613450-5-1 and ANSI/ESD S2020
Sizes:	Womens 7 to 12.5 Mens 6 to 13 Order with European size 38 to 47

ECO Boot SS offers ESD protection and safety steel toe cap for inside or outside use in adverse climatic conditions. Resistant to oil and chemicals. Coushioned colar. Anti perforation sole. Reinforced lace eyelets. Rugged, yet lightweight, only 1.5-lbs (690gm) per shoe. Brown suede leather. Has anatomic, anti-fungal, sweat-free inner sole. Width size to Calzata 10.5 (Mondopoint). EN 345 ESD and Safety standards. Maked with ESD Symbol.

ESD Shoes

About ESD Shoes

Esd shoes are designed to ensure constant drainage of static charges from the body to ground. Features static-dissipative inner soles and outersoles which provide continuous electric contact of the foot to ground as required by ESD standards. Natural leather is used for both upper shoe and inner sole, providing comfort and long-term wearability. All models have ESD symbol.

Clogs - Open Back

Elme *ZAD 9000*

Order Nr. 8500xx (see page 29 size chart)

$50.00

Upper:	Perforated Natural white Leather
Inner sole:	Natural leather
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

Light weight clogs are comfortable footwear for operators working in the E.P.A. The perforated upper shoe enables good transpiration at an attractive price. Flexible white soles are non-marring.

Static Dissipative Washable Insoles

Elme *FTB*

Order Nr. 8640xx (See page 29 size chart)

$7.50 pair

Add more comfort to your working day with FTB washable, static dissipative insoles. Increases personal hygiene and reduces fatigue while extending the life of your clogs. May be washed together with other clothes. Available in all sizes.

Conductive Clean Room Booties

Elme *CLEAN COVER SHOE*

Order Nr. 866000 (One Size Fits All)

$1.50 each

Designed to ground operators in cleanrooms. Made of elasticized blue polypropylene with a conductive ribbon for grounding. Excellent for visitors in the EPA. Dust control. Non-marring.

Moccasin Slip on
Elme *MOKA*

Order Nr. 8540xx White (see page 29 size chart)
Order Nr. 8541xx Black
$75.00

Upper:	Breathable Microfiber
Lining:	Transpirant
Inner sole:	Static-dissipative
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

The MOKA is a comfortable slip on ESD shoe that features an anti-skid polyurethane ESD sole. Breathable upper shoe with soft inner lining makes this shoe very comfortable. White sole will not mar floors. Resists oils and grease. Light weight. Flexible Polyurehtane injected molded sole acts as shock absorber. Machine washable at 30 ° C.

These sandals anatomically conform to the foot and reduce fatigue for operators standing for long periods. Non marring white sole.

Sandal Open Back
Elme *Natura Open*

Order Nr. 8620xx (see page 29 size chart)
$50.00

Upper:	Natural white leather
Inner sole:	Natural leather
Footprint:	Extra-safe Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 12 Order with European size 35 to 46

Luxury Clog
Elme *Rado*

Order Nr. 8480xx White (see page 29 size chart)
Order Nr. 8481xx Black
$75.00

Upper:	Breathable Microfiber
Lining:	Transpirant
Inner sole:	Static-dissipative
Sole:	Polyurethane
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

The RADO is a luxury Clog that features an anti-skid polyurethane ESD sole. Breathable upper shoe with soft inner lining makes this shoe very comfortable. White sole will not mar floors. Resists oils and grease. Light weight. Flexible Polyurehtane injected molded sole acts as shock absorber. Machine washable at 30 ° C.

Wide Safety Sandal
Elme *ECO 570 SS*

Order Nr. 8570xx (see page 29 size chart)
$75.00

Upper:	Suede Gray leather
Lining:	transpirant
Inner sole:	Natural leather
In Sole:	Soft high density PUR
Eyelet:	Ultra Resistant Steel
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

ESD Safety Sandals. Extra WIDE comfort for full day's work. Features safety steel toe cap and anti-skid polyurethane ESD sole. Dark suede leather upper shoe with soft inner lining makes this shoe very comfortable. Velcro closure. Acid and oil resistant.

Lace Up Shoe
Elme *Stringa*

Order Nr. 8582xx Black (see page 29 size chart)
Order Nr. 8583xx White

$75.00

Washable !

Upper:	Breathable Microfiber
Sole:	Polyurethane
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

Comfortable internal lining and heal shock absorption for long working days. Anti-slip ESD soles. Upper portion of shoe is breathable to provide comfort and flexibility. Resistant to oil and fuels. Ensures constant drainage of static charge. Machine washable at 30 ° C. Rust proof eyelets.

Comfortable Lace Up
Elme *Flexa*

Order Nr. 8590xx (see page 29 size chart)
$75.00

Upper:	Brown suede leather
Feature:	Perforated for Transpiration
Sole:	Polyurethane
Footprint:	Anti slip
Res. To Ground:	<3.5 x 10^7 Ohm
Sizes:	Womens 4 to 12.5 Mens 6.5 to 13 Order with European size 35 to 47

This comfortable shoe is designed for people working inside the E.P.A. as well as outside the plant where dry environments are present providing continuous drainage of static charge. Perforated for transpiration. Has anti-slip sole.

Executive Office & Lab

Elme *CLASSIC MAN (Discontinued)*

Order Nr. 8530xx (see page 29 size chart)

$90.00 Limited Stock Available

Upper:	Black leather
Sole:	Polyurethane
Footprint:	Anti slip
Res. To Ground:	$<3.5 \times 10^7$ Ohm
Sizes:	Mens 6.5 to 13
	Order with European size 39 to 46

Executive Office & Lab

Elme *CLASSIC LADY (Discontinued)*

Order Nr. 8550xx (see page 29 size chart)

$175.00 Limited Stock Available

Upper:	Black leather
Sole:	Double PUR layer
Footprint:	Anti slip
Res. To Ground:	$<3.5 \times 10^7$ Ohm
Sizes:	Womens 4 to 12.5
	Order with European size 35 to 43

ESD Shoe Size Chart

How to Order:

Find the USA Men or Women sizes using the chart below.
Then order ESD Shoes using the "Euro Size".

Caution: Euro shoes tend to run about 1/2 to 1 size longer than expected.
TopLine has a "No Return" policy for ESD Shoes due to size differences.

Shoe Dimensions (Except ECO 570SS)

Made to popular Italian Calzata "10.5 standard.

Euro Size	38	39	40	41	42	43	44	45	46	47
USA Men	-	6.5	7.5	8.5	9	10	10.5	11.5	12	13
USA Women	7	7.5	8.5	9.5	10	11	11.5	12.5	-	-
Length Insole	253.3 mm	260 mm	266.7 mm	273.3 mm	280 mm	286.7 mm	293.3 mm	300 mm	306.7 mm	313.3 mm
Length Insole	10"	10.25"	10.5"	10.75"	11"	11.25"	11.5"	11.75"	12"	12.33"
Standard Width Insole	83mm	85mm	87mm	89mm	90mm	91mm	92mm	93mm	94mm	95mm
Standard "Round" Size	236 mm	240 mm	245 mm	249.5 mm	254 mm	258.5 mm	263 mm	267.5 mm	272 mm	276.5 mm

For wider "ECO" Series Shoes (Calzata "11 standard).

Width Insole	87mm	89mm	91mm	93mm	95mm	96mm	97mm	98mm	100mm	102mm
"Round" Size	242 mm	246.5 mm	251 mm	255.5 mm	260 mm	264.5 mm	269 mm	273.5 mm	278 mm	282.5 mm

The "ROUND SIZE" is measured at the circumference at the largest opening of the shoe. The chart shoes the primary difference between the foot plant of standard Calzata 10.5 width or wider Calzata 11 width of the shoe.

Floor Tape to Mark E.P.A. Boundary

Elme *REA-EPA 50*

Order Nr. 808000
$18.00 single quantity
$15.00 each (Order Box of 36)

Heavy duty yellow EPA warning tape is remarkably strong and extremely long lasting. Made with superior multilayer construction.

The ink is printed on the underside of the clear top laminating layer so the markings won't rub off. Ideal solution to mark ESD Protected Areas boundaries, making them visible both to visitors and operators. Strong adhesive grip, but allows removal with minimum residue. Thin, 4 mil (0.1mm) thickness reduces delamination while allowing continuous passage of trolleys and personnel.

Dimensions:

- Width: 2" wide (50mm)
- Length: 108ft (33m)
- Core: 3" (75mm)
- Thickness: 4mils (0.10mm)

Conductive Shielded Grid Tape

Order Nr. 808012 - 1/2" Wide $3.00
Order Nr. 808019 - 3/4" Wide $4.00
Order Nr. 808024 - 1" Wide $5.00
Order Nr. 808050 - 2" Wide $7.50

Quantity discounts available

Dimensions:

- Length: 118ft (36m)
- Core: 3" (75mm)
- Thickness: 1.2mils (0.03mm)
- Resistivity: Anti-Static Top Layer 10^9 ohm
  Conductive Grid Middle Layer $10^3 \sim 10^4$ ohm
  Anti-Static Bottom Layer 5x 10^{11} ohm

Conductive grid shielding tape for use in ESD sensitive environments. Non-sparking antistatic outer surfaces. Conductive grids are embedded between inner and outer layers, thus preventing shedding, flaking, cracking, chipping or rubbing off from grids. Provides effective static shielding.

Small ESD Labels & Signs

Elme *EAS 006006* Order Nr. 808106

$49.00 Roll of 1000. Size .25" Square (6mm Sq) Adhesive Label

Elme *EAS 0205-ING* Order Nr. 808205

$75.00 Roll of 1000. Size .875" x 2" (20 x 50mm) Adhesive Label

Elme *EAS 0408-ING* Order Nr. 808408

$82.00 Roll of 1000. Size 1.5" x 3" (40 x 80mm) Adhesive Label

Elme *EAL 1025-ING* Order Nr. 808125

$24.00 pack of 4. Size 4" x 10" (100 x 250mm) Adhesive Sign

Elme *EAL 3060-ING* Order Nr. 808306

$35.00 each. Size 12" x 24" (30 x 60cm)
Non-Adhesive Wall Mount Sign

Easily recognizable EPA warning labels and signs. Yellow color with ESD symbol. Self adhesive on bags, products or wall mount to alert people of static protection issues. Variety of useful sizes. Polypropylene label material with acrylic adhesive. Meets requirements of meet requirements of EIA 541 as well as ESDA 2020 and IEC 61340-5-1 standards.

Large ESD Floor Signs

Elme *EAL 3232-FLOOR*
Order Nr. 808100
$12.00 each. Please order in multiples of 10

Size 12.5" (32cm) Diameter

Easily recognizable EPA warning labels. Yellow color with ESD symbol. Self adhesive for floor and wall mount. Ultra strong PVC withstands wearout from trolleys and foot traffic.

Especially useful in large production areas to alert people of static keep out areas. Visible from far away.

ESD Tray Straps

Permanent ESD Properties
Reusable & Recyclable

Elme *V GRIP-01*
Order Nr. 885001

550mm Long x 25mm Wide
1 to 99pcs $4.00
100 to 249pcs $3.75
250 to 499pcs $3.50
500 to 999pcs $3.25
High Quantity Discounts Available.

- Fits all JEDEC (EIAJ) Matrix Trays
- Quick Release Buckle
- Strong and Durable
- Reusable and Recyclable
- Permanently Static Dissipative
- Also use for tubes

Also use to wrap IC tubes.

V-GRIP ESD tray strap, out performs all existing tray straps on the market. Its exclusive design does not create any electrostatic charge. The strap is made of black polypropylene (PPL) with permanent ESD features. The nylon buckle secures by locking its handle down. Velcro is sewn onto the polypropylene belt. V-GRIP straps are economical, reusable and recyclable. Permanently Static Dissipative - not just dipped in an antistatic agent - Will not loose ESD properties. Straps are marked with the ESD safe symbol.

Specfications:
Resistivity: 10^6 ~ 10^8 (point to point)
Static Decay Time: From 1000 to lower than 100V in less than 1 second
Static Generation: Well below 100V/in

550mm length will secure 10 to 12 trays, depending on the tray thickness.

Secures all matrix trays (JEDEC and EIAJ).

ESD PC Board Holder
Groundable - Adjustable

Elme *PC40-WIRE*
Order Nr. 250601
$40.00

Dimensions:
- 12" x 5" x 5" (300 x 120 x 120mm)
- Holds up to 10" wide boards

Bench mount PC Board holder. ESD Safe. Adjustable up to 10" (250mm) wide boards. Excellent for rework and assembly. Easy to mount onto any bench top. Includes grounding cord with 1M ohm resistor and grounding ring.

ESD Tool Set
Handle + 4 Probes

Elme *CAPT. HOOK*
Order Nr. 250000
$59.00
Quantity Discounts Available

Conductive Plastic Desoldering Pump
Superior Design

Elme *VYPER*
Order Nr. 222101
$10.00
Quantity Discounts Available

Dimensions:
- 7.5" (190mm) long x 0.9" (23mm) diameter.
- Aspiration Volume = 11.3cc
- Weight 45g (2-oz)

Spare Tips
Order Nr. 222106
$4.00 for 2 tips

The ***Vyper*** desoldering pump is the best on the market. Black conductive plastic body. Black teflon/carbon conductive tip. Easiest pump to clean and maintain. Once you try the ***Vyper***, you'll be convinced.

Vampire Vacuum Tool

VAMPIRE Vacuum Pick Up Tool

Elme *High Power Vampire*

Order Nr. 222444
$44.50

Set Includes:

- Vampire vacuum body
- High Power Angled Probe with 9mm cup
- High Power Straight Probe with 9mm cup
- Straight Needle with 4mm and 6mm cups
- Lubricant and instructions.

Lifts 120 grams

VAMPIRE Spare Parts

Order Nr. 222555
$19.50 Kit

All cups are conductive rubber

Set Includes:

- High Power Angled Probe with 9mm cup
- High Power Straight Probe with 9mm cup
- Straight Needle with 4mm and 6mm cups

VAMPIRE Spares

Order Nr. 224443
$9.50 Each
Straight Probe with 1.5mm cup glued to metal needle

VAMPIRE Spares

Order Nr. 224442
$9.50 Each
45° Angled Probe with 1.5mm cup glued to metal needle.

VAMPIRE Spares

$3.00 each cup (Order in sets of 10)
4mm Cup Order Nr. 333335
6mm Cup Order Nr. 333336
9mm Cup Order Nr. 333334

Set of 3 Cups Order Nr. 333338
$10.00 per set of 3
Includes one of each: 4mm, 6mm and 9mm

VAMPIRE Spares

$9.50 each
Angle Probe with 4mm Cup
Order Nr. 224444

Straight Probe with 4mm Cup Order Nr. 223388
$9.50 each

Wafer Vampire Vacuum Tool

WAFER VAMPIRE Vacuum Pick Up Tool

The Wafer Vampire hand-held pick-up tool, ideal for picking up and inspecting silicon wafers. Lightweight and completely portable. The Vampire's dimensions conveniently fits in your hand. High power probes feature long holding action for picking up wafers 4" to 8" diameter. Long Holding action. No batteries required. No hoses.

Body Only
Order Number 226666
$75.00

Angle Probe
Order Number 227777
$60.00

Straight Probe
Order Number 228888
$60.00

S-Bend Probe
Order Number 229999
$60.00

Wall Mount
Wrist Band and Shoe Tester

Elme *SVR-SR2*

Order Nr. 868000

$295.00

Ship Wt. 5-lbs (2kg)

The SVR-SR2 multipurpose tester measures the allowable conductivity of footwear and wristbands. Colored LED monitoring lights and audible buzzer. Has 2 different ranges for wristbands and footwear. Allows test of either single or both feet.

- Includes a wall mountable yellow panel with test instrument and easy instructions how to use.
- Floor mount metal plate 12" square (300mm SQ).
- Universal selection switch and adaptor allowing different standard grounding cords for wrist or footwear.

4 LED Panel Warning Lights:

- **Green:** Pass. Grounding is OK
- **Red:** High Fail. Resistance to High. Audible Alarm.
- **Red:** Low Fail. Resistance below range. Audible Alarm.
- **Yellow:** The battery needs replacement.

Power: Standard 9V internal battery or 9V @ 100mA external power supply (not included).
Battery duration: About 50,000 checks of 3 seconds duration.
Accuracy: +/- 10%
Environment condition (test conformity): 5°C to 70°C up to 80% Relative Humidity
Upper resistance limits: $35x10^6$ to $100x10^6$ohm
Lower resistance limit: Less than 750 KOhm
Test voltage: 20 Volt
Audible Alarm: Sounds on Red "Fail" mode.

Work Station Monitor

Continuous Monitor

Elme X-WATCH

Order Nr. 869000

Mounts under or on top of bench

Size: 4"x 2"x 1.25"H (100x52x30mm)

Requires 9VDC ~ 300mA supply

The **X-Watch** continously checks performance of wrist band and mat grounding during the entire work day. Provides confidence that workstation is properly grounded at all times with Pass-Fail **Red**/**Green** LED display and audible buzzer alarm.

On Bench

How it Works: Plug and play. Just plug any wrist band into the banana jack of the X-Watch and start using. The **X-WATCH** simultaneously checks the grounding of mats (both table and floor mats) and wrist band. Malfunctions are alerted by **Red**/**Green** LED and audible tones. A mode switch allows testing of just the wrist band or the mats or both. The **X-WATCH** is powered by an external 9VDC 300mA power supply for 24/7 dependability. A parking snap on the front side allows the operator to leave the work area without turning off the instrument. Can be mounted above or below the work bench for convenience.

Includes ground cords and Instructions.

Under shelf with brackets.

On left side. Mode Switch for mats only, wristband only, or both

Wristband Malfunction Warning:

* Wristband not worn or disconnected
* Poor skin to elastic band connection
* Electrically bad wristband cord

Mat Grounding Failure Warning:

* Mat becomes disconnected
* Deterioration of mat grounding properties
* Electrically bad grounding cord
* Poor grounding facility of workstation

Wiring Diagram

Earth grounding of the monitor to bench and floor mats

Specs:

Size: 4" x 2" x 1.25" H (100x52x30mm)

Alarms: High Visibility **Red**/**Green** LED + Audible buzzer

Power: External 9VDC 300mA (not included)

Inspection Mirrors

Look From Behind

About Inspection Mirrors

EMR inspection mirrors are useful to optically inspect BGA, SMT and other components. Use for rework or general inspection. For best results, use with bright light, cameras and magnifiers. Fits in tight places. Adjustable shaft length from handle. Flexible shaft, allows adjustment to correct angle. Available in 3 useful shapes.

Elme *EMR Series*

Order Nr 220201 EMR-SQUARE SET with handle
Order Nr 220202 EMR-SIDE SET with handle
Order Nr 220203 EMR-T SET with handle
$60 each
Quantity Discounts Available

EMR-T Rectangle:
.75" x .20"
(19x5mm)
Order Nr. 220203

EMR-SIDE Rectangle:
.375" x .12"
(9.5x3.0mm)
Order Nr. 220202

EMR-SQUARE:
.375"SQ
(9.5mm)
Order Nr. 220201

Example How to Use.

Position mirror-probe at the correct angle to optimize rear viewing.

Elme *EMR VISION SET*

Order Nr 220000
$120 each

Vision Set Includes:
1-handle, 3 changeable mirrors in ESD box case, and pack of GLASSWIPE 1010 cleaning wipes.

Additional Information: The EMR inspection system consists of an ergonomically designed, easy-grip metal ESD safety handle and interchangeable mirror probes. Choice of mirror shapes and probe angles allows you to select the best tool for the job. Useable with naked eyes or with auxiliary optical magnifier and lighting. Use to inspect cold solder joints, imperfections in wiring connections, damaged parts and the underside of BGA components. Also useful in micro-mechanics and biotech applications.

5 ~ 6 Chairs

7 Gloves

8 ~ 9 Clothes

10 Foot Grounder

11 Wrist Straps

12 ~ 13 Brushes

14 ~ 15 Flooring

16 ~ 17 Bench Mats

18 ~ 20 Ground Cord

21 Field Service Kit

22 Workstation Footrest

22 Step Stool

23 ~ 29 Shoes

30 Tape

31 Labels

32 Tray Straps

33 ~ 35 Tools

36 ~ 37 Tester

38 Inspection Mirrors

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