



Quality Products for ESD Control ESD Control





DescoIndustries.com/Factories



NEW ITE



These details separate Desco from all the rest:

- We make most what we sell
- We manufacture in the USA
- Product support personnel
- Online technical bulletins and drawings
- Patented and trademarked products
- We sell through regional, national and international distribution
- · ESD surveys and training
- Superior warranties
- Satisfaction guaranteed

In addition, our products have these details:

- Machined stainless steel studs on wrist straps
- Patented contoured banana plugs
- Custom molded coil cords
- Soft-fold bag construction
- Hip-to-cuff grounded smocks
- Matting with lifetime electricals
- Non-humidity dependent mats and bags
- Low charging dissipative floor finish
- Dual-wire and single-wire continuous monitors
- Ionizers with removable emitter cassette - superior feedback controls

Need details about our products?

- See Our Web Site: <u>Desco.com</u>
- E-mail Us: <u>Service@Desco.com</u>
- Customer Service: 909-627-8178 (Desco West) or 781-821-8370 (Desco East)

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Desco ESD Control Products

Made in America

Use Desco ESD protective products and Desco services to optimize your ESD control program. Turn ESD control into a competitive advantage improving quality, productivity, and customer satisfaction. We manufacture most Desco products in one of our six manufacturing plants in the United States. See live web cam of Desco products being manufactured in America by going online to DescoIndustries.com/Factories.

Your ESD Control Program Should Provide a Significant Financial Return

ElectroStatic Discharge (ESD) is the hidden enemy within your factory. You cannot feel or see most ESD events but they can cause electronic components to fail or cause mysterious and annoying problems. There are two types of ESD damage: 1) Catastrophic failures, and 2) Latent defects. By definition, normal quality control inspections are able to catch catastrophic failures, but are not able to detect latent defects.

See the ESD Association web site at <u>esda.org</u>: "Others estimate the actual cost of ESD damage to the electronics industry as running into the billions of dollars annually. The cost of damaged devices themselves ranges from only a few cents for a simple diode to several hundred dollars for complex hybrids. When associated costs of repair and rework, shipping, labor, and overhead are included, clearly the opportunities exist for significant improvements."

Desco ESD Services are Available at No Charge

Let Desco assist you in meeting ANSI/ESD S20.20-2007, for the Development of an Electrostatic Discharge Control Program. Desco sells through local distributors supported by Regional Sales Managers. In addition, Desco has over 60 factory ESD trained representatives throughout North America.

Go to Desco.com and contact the Desco Sales Rep responsible for your area. Request an ESD survey and/or an ESD training session. Consider using Desco for all your ESD control products and applying for our T.E.A.M. program to receive additional ongoing support.

Desco Product Managers are proud of their products and are frequently making improvements to the Desco product line. The latest catalog is online at Desco.com with technical documentation and much more. Towards the bottom of each product's web page are links to the technical documentation, including superior limited warranties.

At Desco, we are:

• Experts in ESD control • Focused on ESD control • Have the resources to assist you

Consider Desco for your ESD team and applying for the T.E.A.M. program. With improved quality, productivity and customer satisfaction, convert ESD Control from a prerequisite to a competitive advantage.

List of ESD Protected Area ESD Control Products or QPL

To meet ANSI/ESD S20.20, a company must have a written ESD control plan including training and compliance verification plans. The ESD Association recommends that the ESD Control "Plan should include a listing of the specific type of ESD protective materials and equipment used in the Program." (ANSI/ESD S20.20 section 6.1.1.2.) Desco's broad product line in this catalog contains most of what you will need. Use this catalog to select your list of ESD protective materials and equipment for your ESD Control Program Qualified Parts List.

Contact us:

You are welcome to tour any of our facilities at:

3651 Walnut Avenue, Chino CA 91710; 13520 Monte Vista Avenue, Chino CA 91710; 324 Palm, Santa Barbara CA 93101; 73 Allen Street, Rochester NH 03867; One Colgate Way, Canton, MA 02021; and 13937 SW 119 Ave, Miami, FL 33186.

Consider Desco a source for ESD control information; just e-mail technical or customer service questions to Service@ Desco.com. Call us at (909) 627-8178 at Chino, California or (781) 821-8370 at Canton, Massachusetts.





How do I manage my ESD Control Plan?

An ESD Control Plan must be comprehensive and documented into a protection plan that encompasses the processes, personnel, and ESD susceptible items.

ANSI/ESD S20.20 requires a written ESD control plan including training and compliance verification plans.

Desco's survey program includes the following:

- A Written ESD Survey Report
 Written documentation for management of the Technical Elements of your ESD Control Plan
- Test measurements compared to ANSI/ESD S20.20-2007 and ESD TR53 - Verify your ESD control products meet the ANSI/ESD S20.20-2007 industry standard
- Implementation of ESD protective products
 Choose the best suited product for your ESD Control Plan
- Verify ESD productive products are installed properly and functioning
 - Ensure that you are getting full value out of the products you invest in
- Where applicable, the Desco ESD Survey covers the following Technical Elements
 - Grounding
 - Wrist straps
 - Footwear
 - Flooring
 - Signage
 - Packaging Worksurfaces
 - Mobile equipment (carts)
 - Shelving
 - Ionizers
 - Seating
 - Continuous Monitors
 - Garments
 - Soldering iron tips / AC powered tools

Turn your ESD Control Plan into a competitive advantage focused on:

- INCREASED Quality
- INCREASED Productivity
- INCREASED Customer Satisfaction

For more information on an ESD Survey, ANSI/ESD S20.20, or other questions regarding ESD control contact us at:

Phone: 909-627-8178 • E-mail: <u>Service@Desco.com</u> • Web site: <u>Desco.com</u>





Magnetic

Revolutionary Magnetic

Interconnect Technology

Meets ANSI/ESD S1.1, including

disengagement force test (1 -5 lbs)

MagSnap[®] Coil Cords have

a superior strain relief with

a limited lifetime warranty.

Available on Page 10

Jewel[®] MagSnap[®] Adjustable Elastic Wrist Straps

| <u>09183</u> | Elastic Wristband Only |
|--------------|-------------------------------|
| <u>09184</u> | Elastic Wrist Strap, 6' Cord |
| <u>09185</u> | Elastic Wrist Strap, 12' Cord |

- Longer lasting, no moving parts
- Magnetic connection between wristband and coil cord (US Patent# 5,004,425); superior electrical connection to eliminate intermittent failures of some snaps
- Meets ANSI/ESD S1.1, including disengagement force test (1 -5 lbs)
- Non-shedding, non-sloughing replaceable lightweight fabric band; band will not introduce contaminates into the work area and may be replaced without replacing entire wrist band
- Made in America

Download Drawings <u>09180</u> and <u>09183</u> Download Technical Bulletin <u>TB-2005</u>

Single-Wire MagSnap[®] Wrist Straps and Coil Cords include 4mm steel capped parking station adapter. Adapter allows users to use new MagSnap[®] interconnect system with constant monitors using 4mm snap studs for parking station.

Jewel[®] MagSnap[®] Adjustable Metal Wrist Straps

Listing #90P1

09184



(excluding right angle products).



Jewel[®] Elastic Adjustable Wrist Straps

| <u>09100</u> | Elastic Wrist Strap, 6' Cord, Sapphire | |
|---|---|-------------|
| <u>09102</u> | Elastic Wrist Strap, 6' Cord, Ruby | |
| <u>09103</u> | Elastic Wrist Strap, 6' Cord, Topaz | |
| <u>09104</u> | Elastic Wrist Strap, 6' Cord, Emerald | |
| <u>09110</u> | Elastic Wrist Strap, 6' Cord, Amethyst | |
| <u>09130</u> | Elastic Wrist Strap, 10' Cord, Sapphire | |
| <u>09105</u> | Elastic Band Only, 4MM, Sapphire | |
| <u>09106</u> | Elastic Band Only, 4MM, Ruby | 09100 |
| <u>09107</u> | Elastic Band Only, 4MM, Topaz | 09102 09103 |
| <u>09108</u> | Elastic Band Only, 4MM, Emerald | 09104 |
| <u>09109</u> | Elastic Band Only, 4MM, Amethyst | 09110 |
| <u>09140</u> | Elastic Replacement Strap | |
| Limited lifetime warranty on our wristband stud; if damaged during normal use, we will provide no-charge replacement Limited lifetime warranty on our strain relief; normal use will not cause coil cord resistor strain relief connection to wear sufficiently to open path-to-ground circuit High visibility bright colors allow supervisor to see that worker is wearing wrist strap | | |

- Patented (US Patent 5,951,337) contoured spring supported banana plug; ensures reliable path-to-ground connection expanding banana plug into socket
- Solid stainless steel wristband stud machined to exacting tolerances and precise profile; ensures reliable path-to-ground connection to spring loaded 4mm stainless steel constant coil cord snap
- Made in America

Download Drawings <u>09105</u>, <u>09120</u> and <u>09150</u> Download Technical Bulletin <u>TB-2005</u> MagSnap[®] Coil Cords have a superior strain relief with a limited lifetime warranty.

Available on Page 10

Note: All bands on this page have a 4mm snap stud. Wrist strap kits include an alligator clip (excluding right angle products)

Desco Jewel® Wrist Straps - Superior Path-to-Ground









Single-Wire Wrist Straps

Premium Metal Expansion Wrist Straps

Adjustable bands

| 00041 | wicial whotballa only |
|--------------|---|
| <u>09200</u> | Metal Wristband Only, Red-White-Blue, NEW |
| <u>09042</u> | Metal Wristband Only, Extra Large |
| <u>09085</u> | Metal Wrist Strap, 6' Cord |
| <u>91070</u> | Metal Wrist Strap, 6' Cord, Right Angle |
| Fixed siz | ed bands |
| <u>09043</u> | Metal Wristband Only, Large |
| <u>09044</u> | Metal Wristband Only, Medium |
| <u>09045</u> | Metal Wristband Only, Small |

- <u>09086</u> Metal Wrist Strap, 6' Cord, Large
- <u>09087</u> Metal Wrist Strap, 6' Cord, Medium
- 09088 Metal Wrist Strap, 6' Cord, Small
- · Metal expansion wrist strap with more reliable path-to-ground
- One size fits all bands adjust quickly and easily to any size
- Fixed sized bands are easy to use, no adjustments
- Medical grade stainless steel interior expansion band will not cause allergic reactions for most people
- Coil cord features superior strain relief; tests in excess of 1,000,000 cycles - eliminates intermittent failures
- Made in America

Download Drawings 09041, 09480, 91095 (adjustable) and 09043 (fixed sized) Download Technical Bulletin TB-2005

Elastic Wrist Straps

Adjustable bands

| <u>09028</u> | Elastic Wristband Only |
|--------------|-------------------------------|
| <u>09070</u> | Elastic Wrist Strap, 6' Cord |
| <u>09069</u> | Elastic Wrist Strap, 12' Cord |
| <u>09029</u> | Elastic Replacement Strip |
| <u>09031</u> | Replacement Clasp Only |

Fixed sized bands

| <u>09025</u> | Elastic Wristband Only, Small |
|--------------|--------------------------------|
| <u>09026</u> | Elastic Wristband Only, Medium |
| <u>09027</u> | Elastic Wristband Only, Large |

- Extra wide, soft elastic band for increased wearer comfort
- Silver impregnated nylon knitted on inside for superior conductivity; reliably removes generated static charges
- Adjustable bands may be fitted to almost all people; only one item to stock
- Fixed size bands are easy to use, no adjustment
- Coil cord features superior strain relief; tests in excess of 1,000,000 cycles
- Made in America •

Download Drawings 09028, 09480 (adjustable) and 09025 (fixed sized) Download Technical Bulletin TB-2005

Note: All bands on this page have a 4mm snap stud. Wrist strap kits include an alligator clip (excluding right angle products)







09085

Listing #90P1





09070

(9)

Verify proper function of your Wrist Straps with Desco Wrist Strap Testers. See Page 51







Single-Wire Wrist Straps

/RIST STRAPS

Lightweight Elastic Adjustable Wrist Straps

| <u>14840</u> | Elastic Wristband Only |
|--------------|-------------------------------|
| <u>14810</u> | Elastic Wrist Strap, 6' Cord |
| <u>14830</u> | Elastic Wrist Strap, 10' Cord |

- Durable, lightweight fabric; some users prefer the comfort and flexibility of this material
- Silver impregnated polypropylene knitted on inside for superior conductivity; reliably removes generated static charges
- Made with pure silver irreversibly bound to fibers; provides both antimicrobial and anti-odor performance
- Adjustable may be fitted to almost all people; only one item to stock
- Made in America

Download Drawings <u>14810</u> and <u>14010</u> Download Technical Bulletin <u>TB-2005</u>

Hook and Loop Wrist Straps

09060Wristband Only09078Wrist Strap, 6' Cord

- Non reactive, anti-microbial, anti-bacterial medical grade conductive strip reduces growth of mold, mildew, and fungus; the best choice for users with ultra sensitive skin
- Return loop quick, easy adjustment mechanism; one size fits all, only one item number to purchase and stock
- Made in America

Download Drawings 09060 and 09480 Download Technical Bulletin TB-2005

Vinyl Disposable Wrist Straps

14401 Disposable Wrist Strap

- Designed for one time use; perfect for guests, field service calls, or to be shipped with ESD sensitive products
- Dissipative vinyl ribbon is 35.5" long, with mini alligator clip included; versatile, providing an effective solution when clipped to ESD ground
- Packaged individually in a printed bag with instructions
- Ready to pack with your ESD sensitive products ensuring that when opened, the information and means are provided to continue protecting your ESD sensitive product
- Made in America

Download Drawing 14401

Note: All bands on this page have a 4mm snap stud. Wrist strap kits include an alligator clip (excluding right angle products)



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14810

Relaxed Retraction Single-Wire Coil Cords available on Page 10







Single-Wire Coil Cords

Jewel[®] MagSnap[®] Coil Cords **RIST STRAPS** 09180 MagSnap, 6' Cord, Snap-Banana 09181 MagSnap, 12' Cord, Snap-Banana 09182 Magnetic MagSnap, 20' Cord, Snap-Banana Connection 09190 MagGround, 6' Cord, Snap-Snap 09190 09191 MagGround, 12' Cord, Snap-Snap 09192 MagGround, 20' Cord, Snap-Snap 09193 adapter available 09193 Adapter for MagGround for 09190-19192 to Listing #90P1 connect magnetic ground end to standard · Patented revolutionary magnetic interconnect technology (U.S. Patent 09193 banana jack 09180 5,004,425); to be used with MagSnap® wristbands - see page 6 Superior resistor connection strain relief, superior reliability; greatly exceeds ANSI/ESD S1.1 Bending Life Test (tested at over 11,000,000 cycles vs. the 16,000 requirement) Made in America Download Drawing 09180 Jewel[®] Elastic Adjustable Wrist Straps 09120 Coil Cord, 6', Sapphire Right angle banana jack minimizes 09122 Coil Cord, 6', Ruby snagging and 09124 Coil Cord, 6', Topaz accidental disconnect 09126 Coil Cord, 6', Emerald 09128 Coil Cord, 6', Amethyst 09121 Coil Cord, 10', Sapphire Tilita 09150 Coil Cord, Right Angle, 6', Sapphire 09151 Coil Cord, Right Angle, 10', Sapphire Listing #90P1 · High visibility colors; allows supervisor to see that worker is wearing wrist strap 09120 • Rapid retraction strength polyurethane cords; provides high memory and less coil cord dragging Superior reliability; greatly exceeds ANSI/ESD S1.1 Bending Life Test Patented (U.S. Patent #5951337) contoured spring supported banana plug ensures reliable path-to ground connection Made in America Download Drawings 09120 and 09150 Also Available: **Economy Coil Cords Relaxed Retraction Coil Cords** Click Here for details 09480 Coil Cord, 6', Black 09680 Coil Cord, 12', Black 09682 Coil Cord, 20' Cord, Black 91095 Coil Cord, Right Angle, 6', Black 14113 Coil Cord, Banana-Banana, 12', Black

- Relaxed retraction strength black PVC; more comfortable; will not interfere with wearer's movements
- Superior strain relief tests in excess of 1,000,000 cycles, per ANSI/ESD S1.1 (exceeds by over 62 times the minimum requirement)
- Improved snap design; stronger strain relief and snap retention for long life
- Patented (U.S. Patent #5951337) contoured spring supported banana plug ensures reliable path-to ground connection
- Made in America





See our products being Made in America

on our web site:

DescoIndustries.com/Factories

- 14114 Coil Cord, Banana-Banana, 20', Black
- 10

Download Drawings 09480, 14113, and 91095



Dual-Wire Wrist Straps

J<mark>ewe</mark>l[®] MagSnap[®] Dual-Wire Adjustable Elastic Wrist Straps

| <u>19823</u> | Elastic Wristband Only |
|--------------|--|
| <u>19824</u> | Elastic Wrist Strap, 6' Cord, Right Angle |
| <u>19825</u> | Elastic Wrist Strap, 12' Cord, Right Angle |

- · Longer lasting; no moving parts
- Patented revolutionary magnetic interconnect technology (U.S. Patent 5,004,425); creates magnetic connection between wristband and coil cord
- Dual-wire wrist strap provides redundancy; if one dual-wire wrist strap conductor is severed, operator still has reliable path-to-ground with other wire
- Superior resistor connection strain relief; greatly exceeds ANSI/ESD S1.1 Bending Life Test - tested at over 11,000,000 cycles vs. the 16,000 requirement
- · Adjustable; only one item to stock
- Locking clasp; band locked so it will not slip
- Made in America

Download Drawings 19820 and 19823

Revolutionary Magnetic Interconnect Technology



Meets ANSI/ESD S1.1, including disengagement force test (1 -5 lbs)



Jewel[®] MagSnap[®] Dual-Wire Fixed Sized Metal Wrist Straps

- 19828Metal Wristband Only, Small19827Metal Wristband Only, Medium19826Metal Wristband Only, Large19831Metal Wrist Strap, 6' Cord, Right Angle, Small19834Metal Wrist Strap, 12' Cord, Right Angle, Small
- **19830** Metal Wrist Strap, 6' Cord, Right Angle, Medium
- **19833** Metal Wrist Strap, 12' Cord, Right Angle, Medium
- 19829 Metal Wrist Strap, 6' Cord, Right Angle, Large
- **19832** Metal Wrist Strap, 12' Cord, Right Angle, Large
- · Longer lasting; no moving parts
- Patented revolutionary magnetic interconnect technology (U.S. Patent 5,004,425); creates magnetic connection between wristband and coil cord
- Dual-wire wrist strap provides redundancy; if one dual-wire wrist strap conductor is severed, operator still has reliable path-to-ground with other wire
- Superior resistor connection strain relief; greatly exceeds ANSI/ESD S1.1 Bending Life Test - tested at over 11,000,000 cycles vs. the 16,000 requirement
- Durable metal band long wearing, easy to clean
- Locking clasp; band locked so it will not slip
- Made in America

Download Drawings 19820 and 19826



See our products being Made in America on our web site: DescoIndustries.com/Factories MagSnap[®] Dual-Wire Coil Cords have a superior strain relief with a limited lifetime warranty.

Available on Page 14







Jewel[®] Adjustable Elastic Dual-Wire Wrist Strap

| <u>19691</u> | Adjustable Wristband Only, 4mm |
|--------------|--|
| <u>09163</u> | Adjustable Wrist Strap, 6' Cord, Angle, 4mm |
| <u>09164</u> | Adjustable Wrist Strap, 12' Cord, Angle, 4mm |

- Patented (US patents 6,052,053 and 6,205,408) dual-wire wrist strap provides redundancy; even if one dual-wire wrist strap conductor is severed, operator has reliable path-to-ground with other wire
- Use with resistive loop technology continuous monitors; continuously verifies the proper resistance to ground of the operator - see page 49
- Solid stainless steel wrist band stud machined to exacting tolerances; precise profile ensures reliable path-to-ground - limited lifetime warranty on our wrist band stud
- Durable, lightweight fabric
- Has silver impregnated nylon knitted on inside for superior conductivity; reliably removes generated static charges
- Adjustable; only one item to stock; may be fitted to almost all people
- · Locking clasp; band locked so it will not slip
- Superior resistor connection strain relief superior reliability. Greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 11,000,000 cycles vs. the 16,000 requirement
- Made in America

Download Drawings 09163 and 09160



Dual-Wire Coil Cords available on Page 14

Jewel® Premium Metal Dual-Wire Wrist Strap

| <u>19844</u> | Metal Wristband Only, 4mm, Small |
|--------------|---|
| <u>19842</u> | Metal Wristband Only, 4mm, Medium |
| <u>19840</u> | Metal Wristband Only, 4mm, Large |
| <u>09165</u> | Metal Wrist Strap, 6' Cord, Angle, 4mm, Small |
| <u>09166</u> | Metal Wrist Strap, 6' Cord, Angle, 4mm, Medium |
| <u>09167</u> | Metal Wrist Strap, 6' Cord, Angle, 4mm, Large |
| <u>09168</u> | Metal Wrist Strap, 12' Cord, Angle, 4mm, Small |
| <u>09169</u> | Metal Wrist Strap, 12' Cord, Angle, 4mm, Medium |
| | |

- 09170 Metal Wrist Strap, 12' Cord, Angle, 4mm, Large
- Patented (US patents 6,052,053 and 6,205,408) dual-wire wrist strap provides redundancy; even if one dual-wire wrist strap conductor is severed, operator has reliable path-to-ground with other wire
- Use with resistive loop technology continuous monitors; continuously verifies the proper resistance to ground of the operator - see page 49
- Solid stainless steel wrist band stud machined to exacting tolerances; precise profile ensures reliable path-to-ground - lifetime warranty on our wrist band stud
- Fixed sized bands available in three sizes; easy to use no adjustment necessary
- Durable premium metal expansion wrist strap with more reliable path-to-ground
- Comfortable metal band, designed not to pinch or pull hair
- Superior resistor connection strain relief superior reliability. Greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 11,000,000 cycles vs. the 16,000 requirement
- Made in America

Download Drawings 09165 and 09160



Listing #90P1

09166

ot ninch a pull hair!



Dual-Wire Wrist Straps

19690

19858

hand doe

not pinch o

null hair!

Listing #90P1

WRIST STRAPS

Dual-Wire Snap-One Adjustable Wrist Straps

| <u>19690</u> | Wrist Strap with 6' Cord, Right Angle, 4mm |
|--------------|---|
| <u>19851</u> | Wrist Strap with 12' Cord, Right Angle, 4mm |
| <u>19860</u> | Wrist Strap with 6' Cord, Right Angle, 7mm Female |

- Patented (US patents 6,052,053 and 6,205,408) dual-wire wrist strap provides redundancy; even if one dual wire wrist strap conductor is severed, operator has reliable path-to-ground with other wire
- Used with resistive loop technology continuous monitors; continuously verifies the proper resistance to ground of the operator - see page 49
- 4mm snaps are machined to precision profile from 300 series stainless steel for a consistent and reliable connection. 7mm snaps are stamped
- Woven Silveron™ fabric infused with silver monofilament conductive fiber is comfortable and hypo-allergenic
- Superior resistor connection strain relief superior reliability; greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 200,000 cycles vs. the 16,000 requirement
- Single (Snap-One[™]) snap head allows operators to quickly and easily attach and detach the cord from the wristband
- Park-it feature on Snap-One™ provides convenient park station for cord when not in use

Download Drawings 19690 and 19695

Dual-Wire Coil Cords available on Page 14

Listing #90P

Premium Dual-Wire Snap-One Metal Expansion Wrist Straps

| <u>19857</u> | Wrist Strap with 6' Cord, Right Angle, 4mm, Large |
|--------------|--|
| <u>19858</u> | Wrist Strap with 6' Cord, Right Angle, 4mm, Medium |
| <u>19859</u> | Wrist Strap with 6' Cord, Right Angle, 4mm, Small |

- Patented (US patents 6,052,053 and 6,205,408) dual-wire wrist strap provides redundancy; even if one dual wire wrist strap conductor is severed, operator has reliable path-to-ground with other wire
- Used with resistive loop technology continuous monitors; continuously verifies the proper resistance to ground of the operator see <u>page 49</u>
- 4mm snaps are machined to precision profile from 300 series stainless steel for a consistent and reliable connection
- Fixed sized bands available in three sizes
- Premium durable metal expansion wrist strap with more reliable path-to-ground; comfortable, designed not to pinch or pull hair
- Superior resistor connection strain relief superior reliability; greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 200,000 cycles vs. the 16,000 requirement
- Single (Snap-One[™]) snap head allows operators to quickly and easily attach and detach the cord from the wristband
- Park-it feature on Snap-One™ provides convenient park station for cord when not in use

Download Drawings 19859 and 19695



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Dual-Wire Coil Cords

Jewel[®] MagSnap[®] Dual-Wire Coil Cords

| <u>19820</u> | Coil Cord, MagSnap [®] , Right Angle, 6' |
|--------------|---|
| <u>19824</u> | Coil Cord, MagSnap®, Right Angle, 12' |
| | |

19825 Coil Cord, MagSnap[®], Right Angle, 20'

- Patented revolutionary magnetic interconnect technology (U.S. Patent 5,004,425); creates magnetic connection between wristband and coil cord; meets ANSI/ESD S1.1, including disengagement force test 1-5 lbs)
- More reliable design; longer lasting, no moving parts
- To be used with dual-wire MagSnap wristbands see page 11
- Relaxed retraction strength black PVC; more comfortable will not interfere with wearer's movements
- Superior resistor connection strain relief greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 11,000,000 cycles vs. the 16,000 requirement; limited lifetime warranty on coil cord strain relief
- Made in America

Download Drawings 19820

Jewel[®] Dual-Wire Coil Cords

| <u>09160</u> | Coil Cord, Right Angle, 6' |
|--------------|---------------------------------------|
| <u>09161</u> | Coil Cord, Right Angle, 12' |
| <u>09162</u> | Coil Cord, MagSnap [®] , 20' |

- Dual-wire coil cord provides redundancy; even if one conductor is severed, operator has reliable path-to-ground with other wire
- Use with resistive loop technology continuous monitors; continuously verifies the proper resistance to ground of the operator see <u>page 49</u>
- To be used with dual-wire wristbands see page 12
- Custom manufactured right angle mono-plug; reduces chance of accidental disconnects, providing more secure ground connection
- Superior resistor connection strain relief greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 11,000,000 cycles vs. the 16,000 requirement; limited lifetime warranty on coil cord strain relief
- Made in America

Download Drawings 09160

Snap-One[™] Dual-Wire Coil Cords

| <u>19695</u> | Snap-One Coil Cord, Right Angle, 6', 4mm Snap |
|--------------|--|
| <u>19696</u> | Snap-One Coil Cord, Right Angle, 12', 4mm Snap |
| <u>19866</u> | Snap-One Coil Cord, Right Angle, 18', 4mm Snap |
| 19862 | Coil Cord, Right Angle, 6', 4mm Snap |

- Patented (US patents 6,052,053 and 6,205,408) dual-wire coil cord provides redundancy; even if one conductor is severed, operator has reliable path-to-ground with other wire
- Superior resistor connection strain relief greatly exceeds ANSI/ESD S1.1 Bending Life Test. Tested at over 200,000 cycles vs. the 16,000 requirement
- Park-it feature on Snap-One[™]; provides convenient park station for cord when not in use - simply insert phono plug into hole to allow for hanging cord at workbench
- Single (Snap-One[™]) snap head allows operators to quickly and easily attach and detach the cord from the wristband
- To be used with dual-wire wristbands see page 12

Download Drawings 19695 and 19868









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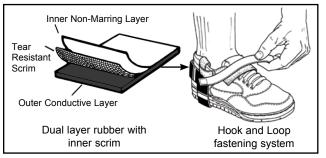


Premium Hook and Loop Heel Grounders

| <u>17200</u> | Heel Grounder, 1 Megohm Resistor |
|--------------|---|
| <u>07560</u> | Heel Grounder, 1 Megohm Resistor |
| <u>17202</u> | Heel Grounder, 2 Megohm Resistor |
| <u>17260</u> | Heel Grounder, 2 Megohm Resistor, Green |
| <u>17222</u> | Toe Grounder, 1 Megohm Resistor |

- · Non-marring interior will not mar shoes
- Tear resistant dual layer rubber with inner scrim provides long life and saves money
- Hook and loop fastening assembly; genuine "non-selveged" Velcro® material - adjustable and comfortable
- 8 strand grounding tab for better body grounding contact
- RoHS compliant ٠
- Made in America ٠

Download Drawings 17200, 17222, 17260, and 07560 Download Technical Bulletin TB-2020





Listing #90P1

17270

Listing #90P1

FOOT GROUNDERS





Green heel grounder for use in lead-free areas

Toe cup for use with high heeled shoes

Full Coverage Foot Grounders

| <u>17270</u> | Heel Grounder, 1 Megohm Resistor, Small |
|--------------|--|
| 17271 | Heel Grounder, 1 Megohm Resistor, Medium |

- 17272 Heel Grounder, 1 Megohm Resistor, Large
- <u>17273</u> Heel Grounder, 1 Megohm Resistor, X-Large
- · Revolutionary design, requires no fastening system
- Easier to install than most foot grounders
- Design ensures a snug, reliable fit
- High visibility yellow is non-marring to floors and shoes
- Provides contact with the ESD floor both under the foot's sole as well as the heel area, providing a more reliable path-to-ground then regular heel or toe grounders
- Choice for HBM class 0 applications
- RoHS compliant
- Made in America

Download Drawing 17270



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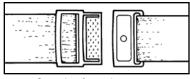


Premium Full Coverage Foot Grounder

| <u>17290</u> | Foot Grounder, 2 Megohm Resistor, Small |
|--------------|--|
| <u>17291</u> | Foot Grounder, 2 Megohm Resistor, Medium |
| 4 | |

- **17292** Foot Grounder, 2 Megohm Resistor, Large
- Two points of contact on the foot's sole as well as the heel area, providing a more consistent path-to-ground than regular heel or toe grounders
- Snap-loc fastening system; easy to install and remove; least particulation and sloughing
- Choice for HBM class 0 applications
- Tear resistant dual layer rubber with inner scrim provides long life and saves money
- RoHS compliant
- Made in America

Download Drawing 17290



Snap-loc fastening system



Premium Sole Grounders

| <u>07501</u> | Sole | Grounde | r, Small, | 2 Megoł | nm R | Resist | or | |
|--------------|------------|----------|-----------|---------|------|--------|----|--|
| | • • | <u> </u> | | | | _ | | |

07502 Sole Grounder, Medium, 2 Megohm Resistor

07503 Sole Grounder, Large, 2 Megohm Resistor

- Makes contact at the sole of the foot where majority of operator's weight is located
- Two megohm resistor; always complies with UL and OSHA recommendations
- Tear resistant dual layer rubber with inner scrim provides long life saving money
- · Non-marring interior will not mar shoes
- Hook and loop fastening system allows for flex during walking; easy to install and remove
- RoHS compliant
- Made in America

Download Drawing 07501 Download Technical Bulletin TB-2020



Verify the proper function of your Foot Grounders with Desco Foot Ground Testers See page 50





Premium 3-Layer Non-Marring Heel Grounders

17250 Heel Grounder, No Resistor

- 17252 Heel Grounder, 1 Megohm Resistor
- Non-marring interior and exterior dissipative rubber; will not mar shoes or floors reduces maintenance costs of touching up floors
- Hook and loop fastening assembly; genuine "non-selveged" Velcro[®] material - adjustable and comfortable
- Bright yellow rubber cup; high visibility to ensure program compliance
- No exposed carbon; ideal for cleanrooms
- Reversible static dissipative 3-layer yellow rubber; extended life expectancy; exceptional wear resistance, able to use all four wearing surfaces
- RoHS compliant
- Made in America

Download Drawing <u>17250</u> and Technical Bulletin <u>TB-2020</u>



3-Layer Non-Marring Heel Grounders

07515 Heel Grounder, 2 Megohm Resistor

- Non-marring interior and exterior dissipative rubber; will not mar shoes or floors - reduces maintenance costs of touching up floors
- · No exposed carbon; ideal for cleanrooms
- Snap-loc fastening system; easy to install and remove; least particulation and sloughing
- 2 megohm resistor; complies with UL and OSHA recommendations at all times
- Reversible static dissipative 3-layer grey rubber; extended life expectancy; exceptional wear resistance, able to use all four wearing surfaces
- RoHS compliant
- Made in America

Download Drawing 07515 Download Technical Bulletin TB-2020

| - | |
|------|--|
| 1000 | |
| | |
| | |
| | |
| | |
| | |
| | |

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Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com



D-Ring Heel Grounders

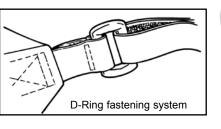
| <u>07590</u> | Heel Grounder, 1 Megohm Resistor |
|----------------|----------------------------------|
| <u>07593</u> * | Heel Grounder, 1 Megohm Resistor |
| 07595 | Toe Grounder, 2 Megohm Resistor |

- · Non-marring interior will not mar shoes
- Exceptionally tear resistant dual layer rubber with inner scrim provides long life and saves money
- D-ring fastening system allows for flex during walking; less particulation and sloughing
- 1 or 2 megohm, heavy duty external molded resistor
- Two-ply high abrasion, wear resistant rubber; provides rapid static dissipation
- Made in America

Download Drawings <u>07590</u> and <u>07595</u> Download Technical Bulletin <u>TB-2020</u>

* BTO (Build to Order)









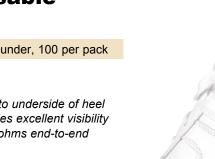
Toe cup for use with high heeled shoes

High Visibility Disposable Heel Grounders

17155 High Visibility Disposable Heel Grounder, 100 per pack

- · Designed for single use for guests
- Sold in packs of 100
- · Self-adhesive section for reliable adhering to underside of heel
- · Yellow with black conductive stripe provides excellent visibility
- Electrical resistance 5 x 10E4 to 8 x 10E5 ohms end-to-end
- Made in America

Download Drawing 17155





To be effective, foot grounders must be used in conjunction with an ESD floor, such as one treated with Statguard[®] Dissipative Floor Finish

See page 24

Also Available: Economy Foot Grounders Click Here for details



17155



Statshield® Smocks

STATSHIELD® JACKETS WITH CUFFS

| <u>Size</u> | BLUE | <u>WHITE</u> | <u>TEAL</u> | BURGUNDY | <u>BLACK</u> | <u>CAMOUFLAGE</u> | |
|-------------|--------------|--------------|--------------|--------------|--------------|-------------------|---|
| X Small | <u>73749</u> | <u>73830</u> | <u>73850</u> | <u>73900</u> | <u>73860</u> | <u>73870</u> | |
| Small | <u>73750</u> | <u>73831</u> | <u>73851</u> | <u>73901</u> | <u>73861</u> | <u>73871</u> | |
| Medium | <u>73755</u> | <u>73832</u> | 73852 | 73902 | <u>73862</u> | <u>73872</u> | |
| Large | <u>73760</u> | <u>73833</u> | <u>73853</u> | <u>73903</u> | <u>73863</u> | <u>73873</u> | |
| X Large | <u>73765</u> | <u>73834</u> | <u>73854</u> | <u>73904</u> | <u>73864</u> | <u>73874</u> | |
| 2X Large | <u>73770</u> | <u>73835</u> | <u>73855</u> | <u>73905</u> | <u>73865</u> | <u>73875</u> | 1 |
| 3X Large | <u>73771</u> | <u>73836</u> | <u>73856</u> | <u>73906</u> | <u>73866</u> | <u>73876</u> | |
| 4X Large | <u>73772</u> | <u>73837</u> | <u>73857</u> | <u>73907</u> | <u>73867</u> | <u>73877</u> | |
| 5X Large | <u>73773</u> | <u>73838</u> | <u>73858</u> | <u>73908</u> | <u>73868</u> | <u>73878</u> | |
| 6X Large | <u>73774</u> | <u>73839</u> | <u>73859</u> | <u>73909</u> | <u>73869</u> | <u>73879</u> | |

STATSHIELD® LAB JACKETS WITH SNAPS

| <u>Size</u> | <u>BLUE</u> | <u>WHITE</u> | T <u>EAL</u> |
|-----------------|--------------|--------------|--------------|
| X Small | <u>73699</u> | <u>73820</u> | <u>73840</u> |
| <u>Small</u> | <u>73700</u> | <u>73821</u> | <u>73841</u> |
| <u>Medium</u> | <u>73710</u> | <u>73622</u> | <u>73842</u> |
| Large | <u>73720</u> | <u>73823</u> | <u>73843</u> |
| X Large | <u>73730</u> | <u>73824</u> | <u>73844</u> |
| 2X Large | <u>73740</u> | <u>73825</u> | <u>73845</u> |
| <u>3X Large</u> | <u>73741</u> | <u>73826</u> | <u>73846</u> |
| 4X Large | <u>73742</u> | <u>73827</u> | <u>73847</u> |
| 5X Large | <u>73743</u> | <u>73828</u> | <u>73848</u> |
| 6X Large | <u>73744</u> | <u>73829</u> | <u>73849</u> |

• Groundable static control garment system per ANSI/ESD S20.20

- Smocks with conductive knitted cuff eliminates need for wristband
 Smocks with snaps require wristband wristband snaps to
- inside cuff
- Creates Faraday Cage effect; charges on worker clothing are shielded, protecting ESD sensitive devices
- Patented (U.S. Patent #4,596,053) hip-to-cuff grounding allows your coil cord to snap to the hip of the smock for hands-free grounding, increasing productivity
- 9% minimum carbon conductive nylon fibers woven in chain-link design; provides continuous and consistent charge dissipation
- Panel to panel continuity and grounding prevents isolated charged conductor in ESD protected area
- 10E5 10E6 ohms per ANSI/ESD STM2.1
- Badge holder tab secures badge holder to tab to avoid damage to other parts of the smock (black and camouflage smocks only)
- Two sleeve pen pockets holds pens or small tools in safe and convenient location for operator (black and camouflage smocks only)
- Made in America

Download Technical Bulletin TB-2055



See our products being Made in America on our web site: DescoIndustries.com/Factories Custom embroidery available. See page 21









Pen Holder*

Badge Holder* *Black and camouflage only



73903

GARMENT

Smocks



Smocks

Statshield[®] Smocks

| STATSHIELD® LAB COATS WITH CUFFS | | | |
|----------------------------------|--------------|--------------|--------------|
| <u>Size</u> | <u>BLUE</u> | <u>WHITE</u> | T <u>EAL</u> |
| X Small | <u>73610</u> | <u>73630</u> | <u>73650</u> |
| <u>Small</u> | <u>73611</u> | <u>73631</u> | <u>73651</u> |
| Medium | <u>73612</u> | <u>73632</u> | <u>73652</u> |
| <u>Large</u> | <u>73613</u> | <u>73633</u> | <u>73653</u> |
| X Large | <u>73614</u> | <u>73634</u> | <u>73654</u> |
| 2X Large | <u>73615</u> | <u>73635</u> | <u>73655</u> |
| 3X Large | <u>73616</u> | <u>73636</u> | <u>73656</u> |
| <u>4X Large</u> | <u>73617</u> | <u>73637</u> | <u>73657</u> |
| 5X Large | <u>73618</u> | <u>73638</u> | <u>73658</u> |
| <u>6X Large</u> | <u>73619</u> | <u>73639</u> | <u>73659</u> |

STATSHIELD® LAB COATS WITH SNAPS

| <u>Size</u> | <u>BLUE</u> | <u>WHITE</u> | T <u>EAL</u> |
|-----------------|--------------|--------------|--------------|
| X Small | <u>73600</u> | <u>73620</u> | <u>73640</u> |
| <u>Small</u> | <u>73601</u> | <u>73621</u> | <u>73641</u> |
| <u>Medium</u> | <u>73602</u> | <u>73622</u> | <u>73642</u> |
| <u>Large</u> | <u>73603</u> | <u>73623</u> | <u>73643</u> |
| X Large | <u>73604</u> | <u>73624</u> | <u>73644</u> |
| 2X Large | <u>73605</u> | <u>73625</u> | <u>73645</u> |
| 3X Large | <u>73606</u> | <u>73626</u> | <u>73646</u> |
| <u>4X Large</u> | <u>73607</u> | <u>73627</u> | <u>73647</u> |
| 5X Large | <u>73608</u> | <u>73628</u> | <u>73648</u> |
| 6X Large | 73609 | 73629 | 73649 |



| Design: Color: | 3 pockets, collar, and conductive cuff or snap |
|-------------------|--|
| Color: | Blue, White, Teal |
| Fabric: | Polyester with 9% minimum carbon |
| | suffused fibers |
| Fabric Weight: | 2.25 ounces/sq yard |
| Durability: | 100 minimum launderings; Click HERE |
| | to see test results. |
| | |



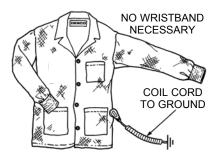
Desco Statshield[®] Smocks are specifically engineered and designed to be part of the Operator Grounding System for "Hands-Free" operator grounding while seated or standing.



See our products being Made in America on our web site: Descolndustries.com/Factories

- Smocks with conductive knitted cuff eliminates need for wristband
- · Smocks with snaps require wristband wristband snaps to inside cuff
- Creates faraday cage effect; charges on worker clothing are shielded, protecting ESD sensitive devices
- Patented (U.S. Patent #4,596,053) hip-to-cuff grounding allows your coil cord to snap to the hip of the smock for hands-free grounding, increasing productivity
- 9% minimum carbon conductive nylon fibers woven in chain-link design; provides continuous and consistent charge dissipation
- Panel to panel continuity and grounding prevents isolated charged conductor in ESD protected area
- 10E5 10E6 ohms per ANSI/ESD STM2.1
- Made in America

Download Technical Bulletin TB-2055



Premium Statshield[®] Smocks feature our patented (U.S. Patent #4,596,053) Hip-to-Cuff grounding feature for hands-free grounding. This removes charges from the worker and smock while allowing hands to be free, allowing for increased productivity. Can be tested while worn using a wrist strap tester per ESD TR53.



Smocks

Heavy Duty Cotton Poly ESD Smocks

| <u>Size</u> | <u>BLUE</u> |
|-------------|--------------|
| Small | <u>73505</u> |
| Medium | <u>73506</u> |
| Large | <u>73507</u> |
| X Large | <u>73508</u> |
| 2X Large | <u>73509</u> |

- < 1 x 10E9 ohms meets required limit of ANSI/ESD S20.20-2007 for static control garment; when properly worn shields ESD susceptible devices from electrostatic charges on worker's clothing
- Fabric: 80% polyester, 19% cotton, 1% minimum conductive fibers; comfortable material to be worn year-round that is resistant to tears and abrasion
- Jacket length with two side pockets and one breast pocket with ESD protective symbol
- Made in America

Download Technical Bulletin TB-3042

Statshield® V-Neck Overshirt

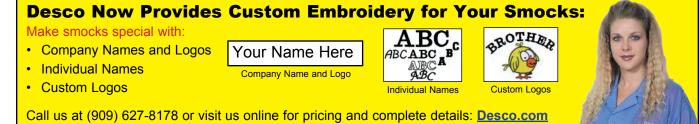
| <u>Size</u> | <u>BLUE</u> |
|-------------|--------------|
| Small | <u>73450</u> |
| Medium | <u>73451</u> |
| Large | <u>73452</u> |
| X Large | <u>73453</u> |
| 2X Large | <u>73454</u> |

- Creates faraday cage effect; shields charges on operator's clothing from ESD susceptible items.
- 9% carbon conductive nylon fibers woven in chain-link design; provides continuous and consistent shielding throughout garment.
- Panel to panel conductivity. RTT < 10E7 ohms; meets Static Control Garment required limit of ANSI/ESD S20.20 < 1 x 10E11 ohms tested per ANSI/ESD STM2.1
- 1 Year / 50 Launderings Limited Warranty
- Made in America

Download Technical Bulletin TB-3039



73452



Smocks with many custom options can be special ordered. Ask us for details.



See our products being Made in America on our web site: DescoIndustries.com/Factories GARMENTS





Gloves

Static Dissipative Gloves

| <u>68105</u> | Man's Small, Beige |
|--------------|-------------------------|
| <u>68104</u> | Man's Medium, Blue |
| <u>68103</u> | Man's Large, Brown |
| <u>68106</u> | Man's Extra Large, Grey |
| <u>68102</u> | Woman's Small, Pink |
| <u>68101</u> | Woman's Medium, Red |
| <u>68100</u> | Woman's Large, Orange |
| | |

GARMENTS

- Non-allergenic polyester glove; comfortable, low charging antistatic; dissipative material will conduct charges when grounded
- Installed 4mm snap stud attaches to coil cord; eliminating need for wristband
- RTG 10E5 10E7 ohms; can be tested while worn using standard wrist strap tester
- Color coded, numerous sizes available; better fit provides high tactile sensitivity; size easily identified
- Made in America

Download Drawing 68100



Click <u>HERE</u> to request a sample

Static Dissipative Hot Gloves

| <u>68112</u> | Small |
|--------------|--------|
| <u>68111</u> | Medium |
| <u>68110</u> | Large |

- Non-allergenic polyester glove; comfortable, low charging antistatic, dissipative material will conduct charges when grounded
- Nomex[®] lining; operator can handle objects to a temperature of 200°F maximum
- Installed 4mm snap stud attaches to coil cord
- RTG 10E5 10E7 ohms; can be tested while
- worn using standard wrist strap tester
 Unisex sizes; versatile, with minimum inventory
- Made in America

Download Drawing 68110



Nomex[®] lining

68104



MM





Gloves / Field Service Kit

GARMENTS

Form Fitting ESD Gloves

| <u>68120</u> | Small |
|--------------|---------|
| <u>68121</u> | Medium |
| <u>68122</u> | Large |
| <u>68123</u> | X-Large |

- Nylon knitted glove is form fitting, comes in 4 sizes
- Choice where tactile sensitivity is important when handling small parts
- Use where cleanliness or charged device model (CDM) failures are a concern
- · Personnel grounding devices can be tested with glove worn with regular wrist strap-footwear tester
- Good elasticity and ventilation minimizes sweat buildup
- Resistance 10E5 10E8 ohms tested per ANSI/ ESD 5P15.1 Standard Practice for In-Use Resistance Testing of Gloves and Finger Cots

Download Drawing 68120

Field Service Kit with Pouch

16475 18" x 22" Field Service Kit with Pouch

- 18 mil (0.018" thick) red laminated dissipate vinyl; dissipative, portable worksurface with two ground snaps
- Construction is a supported laminate for added tear strength; holds up longer in demanding and rough "Field Service" environment
- Adjustable wrist strap and 15' common point ground cord included; everything needed is provided, including large clip with banana jack for use when electrical ground is not available
- Made in America

Download Drawing 16475 and Technical Bulletin TB-2011





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Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com

Provides the same "High Performance ESD Control" properties from the manufacturing level to your on-site Field Service needs.

68120

MM

Click HERE

to request a

sample



16475

Creates ESD Protected Area in the Field

Note: Per ANSI/ESD S20.20 "a protected area may be a single workstation (fixed or portable), laboratory, room, building, or any other area with pre-designated boundaries that contain materials and equipment designed to limit electrostatic potentials.3



FLOOR MAINTENANCE RECOMMENDATIONS

After 2-3 coats of floor finish have been applied, the following programs can be used for maintenance:

Statguard[®]

LOOR MAINTENANCE

DRY MOP PROGRAM - Simple program Floor should be regularly mopped to remove loose dirt and grit from the floor DAMP MOP PROGRAM - Simple program, requires no additional products

Damp mop with a mixture of 3 parts water, 1 part Statguard[®] floor finish.

- Heavy-Moderate Traffic: Clean once a week.
- Low Traffic Floors: Clean floors as dictated by floor appearance.

FLOOR CLEANER PROGRAM - Cleans surface stains, heel marks, and other blemishes Dilute Statguard[®] Dissipative Floor Cleaner 10 parts clean water to 1 part Floor Cleaner.

- Heavy-Moderate Traffic: Clean once a week, or as dictated by floor appearance.

- Low Traffic Floors: Clean floors as dictated by floor appearance.

SPRAY BUFF PROGRAM - Repair scratches, marks, and imperfections and increase gloss One part Statguard[®] finish and two parts water use with buffing machine.

- Heavy-Moderate Traffic: Spray buff once a week.

- Low Traffic Floors: Spray buff as dictated by floor appearance

DRY BURNISH PROGRAM - Increase gloss and remove surface imperfections

Use high speed buffing machine with a white or beige pad.

- Heavy-Moderate Traffic: Once a week.
- Low Traffic Floors: Dry burnish as dictated by floor appearance.

For more information, download Technical Bulletin TB-7042

Statfree[®]

DRY MOP PROGRAM - Simplest program

Floor should be regularly mopped to remove loose dirt and grit from the floor.

FLOOR CLEANER PROGRAM - Cleans surface including stains, heel marks, and other blemishes Dilute Statguard[®] Dissipative Floor Cleaner 10 parts clean water to 1 part Statguard[®] floor cleaner.

- Heavy-Moderate Traffic: Clean once a week.
- Low Traffic Floors: Clean floors as dictated by floor appearance.

SPRAY BUFF PROGRAM - Repair scratches, marks, and imperfections and increase gloss Use ready to use Statfree[®] Spray Buff with buffing machine.

- Heavy-Moderate Traffic: Spray buff once a week or as dictated by appearance.
- Low Traffic Floors: Spray buff as dictated by floor appearance.

BURNISHING RESTORER PROGRAM - Renews the unique protective properties and gloss Ready to use formulation saves on materials and labor costs.

- Heavy Moderate Traffic: Treated 2-4 times per month
- Low Traffic Floors: Treated approximately 1 time per month.

DRY BURNISH PROGRAM - Increases gloss and remove surface imperfections Use ready to use Statfree® Burnisher Restorer with buffing machine.

- Heavy-Moderate Traffic: Once a week.

- Low Traffic Floors: Dry burnish as dictated by floor appearance.

For more information, download Technical Bulletin TB-2045

Statguard® Dissipative Floor Finish

- **10511** Statguard[®] Floor Finish, 2.5 Gallon Cube Bag-in-Box
- **10512** Statguard[®] Floor Finish, 5 Gallon Cube Bag-in-Box
- **10520** Statguard[®] Floor Finish, 55 Gallon Drum

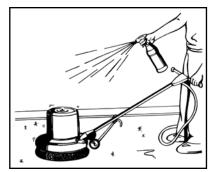
10554 Statguard[®] LH Floor Finish, 2.5 Gallon Cube Bag-in-Box

- 10556 Statguard[®] LH Floor Finish, 5 Gallon Cube Bag-in-Box
- **10500** Statguard Floor Label, 8" diameter, Pack of 10
- Low charging; limits charge generation when walking, < 100 volts per ANSI/ESD S20.20 Flooring-Footwear System ANSI/ESD STM 97.2
- Static dissipative; with ESD footwear, removes the charge off your body
 Can be applied on many hard surfaces or sealed floors including vinyl, VCT, linoleum, rubber, epoxy, acrylic paint, and concrete; converts a non-ESD floor to an ESD floor
- RTT: 10E7-10E9 ohms per ANSI/ESD S7.1 @ 50% R.H.
- UL classified for slip resistance; ensures walker safety and mitigates user's liability exposure
- · RoHS compliant and Made in America

Download Technical Bulletin TB-7042



Damp Mop and Floor Cleaner Programs (Use dedicated mop and bucket)



Spray Buff and Dry Burnishing Programs

The 10500 Statguard[®] Label is used to identify a floor as "ESD Protective" and meets ANSI/ ESD S20.20



10500



See our products being Made in America on our web site: Descolndustries.com/Factories

10512

Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com



Floor Cleaner / Floor Stripper

Statguard[®] Floor Cleaner

10561 Statguard[®] Floor Cleaner, 2.5 Gallon Cube Bag-in-Box, Concentrate

- **10566** Statguard[®] Floor Cleaner, 5 Gallon Cube Bag-in-Box, Concentrate
- Formulated with dissipative agents that rejuvenate and improve the properties of Floor Finish; cleans floors coated with Statguard[®] and Statfree[®] Floor Finish
- Cleans conductive tile flooring; cleans dissipative and conductive floors
- Cleans effectively; does not leave behind insulative residue
- 15% solids; easy to apply; improving productivity
- RoHS compliant
- Bag-in-box packaging; less space to ship and store
- Made in America

Download Technical Bulletin TB-7041





Statguard[®] Floor Stripper

10441 Statguard[®] Floor Stripper, 2.5 Gallon Cube Bag-in-Box, Concentrate

- **10442** Statguard[®] Floor Stripper, 5 Gallon Cube Bag-in-Box, Concentrate
- Non-ammoniated and phosphate-free; environmentally safe, biodegradable
- Low pH formulation; designed to break up and lift multiple layers of Statguard[®] or Statfree[®] Floor Finish
- Strips floor finish from vinyl, VCT, concrete, rubber, terrazzo, quarry tile, brick, slate and unglazed ceramic
- · Bag-in-box packaging; less space to ship and store
- Made in America

Download Technical Bulletin TB-7026

To ground mobile personnel, you need both an ESD floor and ESD footwear.

See pages 15 - 18





See our products being Made in America on our web site: DescoIndustries.com/Factories



Floor Finish / Burnishing Restorer / Spray Buff

Statfree[®] Floor Finish

- 81012 Statfree[®] Floor Finish, 2.5 Gallon Cube Bag-in-Box
- 81013 Statfree® Floor Finish, 5 Gallon Cube Bag-in-Box
- 81030 Statfree[®] Floor Finish, 55 Gallon Drum
- Zinc-free; for companies wanting to reduce discharge of zinc in waste water
- Low charging; limits charge generation when walking, < 100 volts per ANSI/
- ESD S20.20, tested per ESD ANSI/ESD STM97.2 • 18% solids; easy to apply, improving productivity
- UL classified for slip resistance only; ensures walker safety and militates user's liability exposure
- Bag-in-box packaging; less space to ship and store
- RTT 10E7-10E9 ohms per ANSI/ESD S7.1 @ 50% R.H.
- RoHS compliant
- Made in America

Download Technical Bulletin TB-2045

Statfree[®] Burnishing Restorer

81061 Statfree® Burnishing Restorer, 2.5 Gallon Cube Bag-in-Box

- Unique formula extends re-coat cycle extends ESD floor electrical properties and restores gloss; reduces cost
- Easy to use uses standard burnishing machine
- · Bag-in-box packaging storage, dispensing, and savings benefits
- Lead-free RoHS compliant
- Made in America

Download Technical Bulletin TB-7044

Statfree[®] Spray Buff

81050 Statfree[®] Spray Buff, 1 Quart Bottle

- Unique ESD formula; cleans surface soils, and repairs scratches and marks on floors; adds high gloss shine
- · Extends life of floor finish; reduces cost
- Lead-free RoHS compliant
- Made in America

Download Technical Bulletin TB-7045

Desco Floor Care Calculator

Visit <u>Desco.com</u> to choose your Statguard® or Statfree® floor care maintenance program and determine the annual budget and cost per sq. ft. The Desco Floor Care Calculator walks you through the choices of an annual floor care maintenance program. The calculator produces a list of products and quantity needed for the chosen maintenance and floor area entered.









See our products being Made in America on our web site: Descolndustries.com/Factories

6



Carpet Protector / Paint

Statguard[®] Carpet Protector

| <u>81070</u> | Carpet Protector, 1 Quart Ready to Use |
|--------------|--|
|--------------|--|

- <u>81071</u> Carpet Protector, 1 Gallon Concentrate
- Makes non-ESD chair fabrics and carpet ESD protective; controls against ESD while protecting fabric color and life
- Protects chair fabrics and carpet from soil and stains; maintains new-looking appearance of chair fabrics and carpet
- RTT 10E5 10E9 ohms per ANSI/ESD S4.1 and S7.1
- Made in America

Download Technical Bulletins TB-7043

Statguard[®] **Conductive Epoxy**

10400 Epoxy, 4 Gallon Kit, Light Grey

10401 Primer, 4 Gallon Kit

- One coat system saves labor
- · The only ONE COAT 2-part epoxy on the market
- Epoxy is a tight cross-linking thermosetting epoxide polymer providing superior toughness and durability
- · Suitable as ESD floor to meet Flooring Footwear System <3.5 x 10E7 ohms per ANSI/ESD STM97.1 Floor Materials and Footwear Resistance in combination with a Person
- Enhance adhesion when used with 10401 Statguard® Epoxy Primer
- Made in America

RTT: 10E4 - 10E6 ohms per ANSI/ESD S7.1

Download Technical Bulletins TB-7039 (Epoxy) and Technical Bulletins TB-7040 (Primer)

Statguard[®] Conductive **Acrylic Latex Paint**

| <u>10408</u> | 1 Gallon Pail, Grey |
|--------------|--------------------------|
| <u>10409</u> | 5 Gallon Pail, Grey |
| 10410 | 5 Gallon Pail, Light Gre |

• RTT 10E4 - 10E6 ohms per ANSI/ESD-S7.1;

- conductive able to remove electrostatic charges to ground
- Exceeds ANSI/ESD S20.20 minimum recommended technical requirements of < 1 x 10E9 ohms for ESD Flooring - Suitable component in Flooring - Footwear System as primary
- grounding method (<3.5 x 10E7 ohms per ANSI/ESD STM 97.1) Adheres to floors, walls, or wood furniture; provides ESD protective surface
- on concrete and epoxy floors and in places which are difficult to protect
- Excellent wear and durability; excellent value providing long-life
- Coverage: 300-400 sq. ft/gallon; excellent value
- RoHS compliant
- · Made in America

Download Technical Bulletin TB-7001



See our products being Made in America on our web site: DescoIndustries.com/Factories An Effective Alternative to Conductive Floor Mats and Tiles



10409

CONDUCTIVE ACRYLIC PAINT

DESCO A







10400

FLOOR MAINTENANCE

Light Grev

TATGUARD



Light Grey



Surface and Mat Cleaner / Topical Antistat / Floor Tape

Surface

Mat Cleaner

IPATIVE RK SURFACES

ES CONTAMINATING PARTICULATE I NO INSULATIVE FILM OT DEGRADE SURFACE Room compatible

Reztore® Antistatic Surface and Mat Cleaner

enom evic

by refilling

15 or 32 oz

selfiod

- **10434** Reztore[™] Surface & Mat Cleaner, 16 Ounce Spray, Carton of 12
- **10435** Reztore[™] Surface & Mat Cleaner, 1 Quart Spray
- **10438** Reztore[™] Surface & Mat Cleaner, 2.5 Gallon Cube Bag-in-Box, Refill System
- **10601** Static-Wipes, Pop-Up Dispenser, 60 Wipes, Carton of 12
- **10600** Static-Wipes, Pop-Up Dispenser, 160 Wipes
- Static dissipative solution; cleans and restores ESD mats (also use with other ESD control products)
- Does not contain silicone; cleaners with silicone leave an insulative layer, preventing conductive or dissipative mats from functioning properly
- Removes contaminants; eliminates possible source of ESD event
- Reztore[™] special formula will not dry out mats; Reztore[™] will optimize life expectancy, electrical performance keeping mats low charging and pliable
- Made in America

Download Technical Bulletins TB-7000 and TB-7020

Reztore® Topical Antistat

10415 Reztore[™] Topical Antistat, 1 Quart Spray, Carton of 12

- **10418** Reztore[™] Topical Antistat, 2.5 Gallon cube Bag-in-Box, Refill System
- Low charging, antistatic; coated surfaces well below 200 volts per EIA 625
- Static dissipative; provides path-to-ground
- Long lasting hard coat formula; protection that lasts three times as long as the other leading brands
- · Bag-in-box packaging; less space to ship and store
- RTT 10E6 ohms per ANSI/ESD S4.1
- Made in America

Download Technical Bulletin TB-7005

Aisle Marking Tape

| <u>81800</u> | Tape, 3" x 54', Roll |
|--------------|-----------------------|
| <u>81801</u> | Tape, 3" x 108', Roll |
| <u>81802</u> | Tape, 3" x 216', Roll |

- Clearly identifies boundaries of ESD protected areas
- Scuff-resistant vinyl plastic; tough, durable floor tape
- Quick-stick adhesive; easy to adhere to floor
- Bright yellow color; excellent for aisle marking and ESD protected area designation
- Made in America

28

Download Drawing 81800



CAUTION

STATIC SENSITIVE AREA

81800





atic Saturated Tiss

DESCO



Worksurface Mats

Premium Worksurface Mat. Statfree T2[™] Lead-Free Area Identifies the workstation as a Lead-Free work area. Lond-Prea Workstellon **Dissipative Dual Layer Rubber** Mat Top Kits **Green** 24" x 36" (0.6m x 0.9m) 66057 66058 24" x 48" (0.6m x 1.2m) Item #14213 Common Point Ground Kit is included with Mat Top Kits. Compatible Roll Green for use with 24" x 24' (0.6m x 7.3m) <u>66120</u> continuous monitors 30" x 24' (0.76m x 7.3m) 66121 66122 36" x 24' (0.9m x 7.3m) Look for the Statfree[®] brand on Desco ESD matting -66123 48" x 24' (1.2m x 7.3m) for your protection and Grounding hardware is not included with rolls. auditing purposes 66057 See pages 38-40 for hardware. The mat is laser engraved "Lead-Free Workstation" to identify the workstation as a Lead-Free work area Durable rubber material; heat, chemical and wear resistant

- Versatile and long-lasting dissipative worksurface table mat dissipative on top side and conductive on the bottom
- Slows charge removal; meets worksurface required limit of ANSI/ESD S20.20 and recommendations of ANSI/ESD S4.1
- RoHS compliant
- Made in America

RTT: 10E6 - 10E8 (Dissipative Side) and <10E4 (Conductive Side) ohms per ANSI/ESD S4.1 **Thickness:** 0.060" (1.5mm)

All mats are date and lot coded for quality control traceability

Compatible

for use with continuous monitors

66040,

66050.

66051

Look for the Statfree[®] brand

on Desco ESD matting -

for your protection and auditing purposes

Download Drawing PM-122, Technical Bulletin TB-2000

Statfree T2[™] Premium Dissipative Dual Layer Rubber

| <u>Mat Top Kits</u> | <u>Blue</u> | <u>Dark Grey</u> | <u>Dark Blue</u> |
|-------------------------|--------------|------------------|------------------|
| 24" x 36" (0.6m x 0.9m) | <u>66040</u> | <u>66050</u> | <u>66051</u> |
| 24" x 48" (0.6m x 1.2m) | <u>66045</u> | <u>66055</u> | <u>66056</u> |

Item #14213 Common Point Ground Kit is included with Mat Top Kits.

| <u>Rolls</u> | <u>Blue</u> | <u>Dark Grey</u> | Dark Blue |
|---------------------------|--------------|------------------|--------------|
| 24" x 40' (0.6m x 12.2m | <u>66070</u> | <u>66080</u> | <u>66081</u> |
| 30" x 40' (0.76m x 12.2m) | <u>66110</u> | <u>66105</u> | <u>66106</u> |
| 36" x 40' (0.76m x 12.2m) | <u>66075</u> | <u>66085</u> | <u>66086</u> |
| 48" x 40' (1.2m x 12.2m) | <u>66095</u> | <u>66100</u> | <u>66101</u> |

Grounding hardware is not included with rolls. See <u>pages 38-40</u> for hardware.

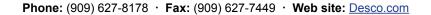
- Durable rubber material; heat, chemical and wear resistant
- Versatile and long-lasting dissipative worksurface table mat dissipative on top side and conductive on the bottom
- RoHS compliant
- Slows charge removal; meets minimum recommended worksurface required limit of ANSI/ESD S20.20 and recommendations of ANSI/ ESD S4.1
- Made in America

RTT: 10E6 - 10E8 (Dissipative Side) and <10E4 (Conductive Side) ohms per ANSI/ESD S4.1 **Thickness:** 0.060" (1.5mm) and 0.125" (3.2mm)

Download Drawing PM-104, Technical Bulletin TB-2000



See our products being Made in America on our web site: DescoIndustries.com/Factories



Premium Worksurface Mat; Ideal for Soldering or

Assembly Areas

MATTING MATERIAL



Statfree UC[™] Dissipative Dual Layer Ultra Clean Rubber

Roll Blue 30" x 24' (0.76m x 12.2m) 66300 Compatible Grounding hardware is not included with rolls. See pages 38-40 for hardware. for use with continuous Note: Custom sizes available upon request monitors Developed for cleanrooms; minimal outgassing; this product was tested by a hi-tech manufacturer who approved it for Class 100 Clean Room use. The FTIR testing produced no detectable levels of Silicone or DOP. 66300 Best application: Clean room, disk drive assembly and repair Slows charge removal; meets worksurface For use in Class required limit of ANSI/ESD S20.20, 100 Clean Rooms recommendations of ANSI/ESD S4.1 Heat, chemical, and wear resistant RoHS compliant Made in America Clean mats RTT: 10E6 - 10E8 (Blue top layer) with Reztore™ <10E5 (Black bottom layer) ohms per ANSI/ESD S4.1 Antistatic Surface Download Drawing PM-121 Download Technical Bulletin TB-2000 and Mat Cleaner See page 28

Statfree J[™] Dissipative Shock Resistant Foam Rubber

| <u>Mat Top Kits</u> | <u>Black</u> | ESD Cushioni |
|--|---|--|
| 16" x 24" (0.4m x 0.6m) | <u>45010</u> | Protects Fragile |
| Grounding hardware is not includ | led. See <u>pages 38-40</u> for hardware. | |
| <u>Roll</u> | <u>Black</u> | |
| 24" x 40' (0.6m x 12.2m) | <u>45000</u> | 43 E) |
| Grounding hardware is not includ | led. See pages 38-40 for hardware. | |
| Resilient non-skid natu Best application: liner i shelves, drawers, etc. Custom sizes available RoHS compliant Made in America | for ESD trays, totes, mobile cart, | |
| RTT: 10E6 - 10E8 ohms | | 45010 |
| Download Drawing PM-11 Download Technical Bulle | | 43010 |
| | | |
| All mats are lot coded f control tra | or quality | Look for the Statfree® brand on Desco ESD matting - for your protection and auditing purposes |





Worksurface Mats

| Statfree Z2™ | Dissi | ipativ | | | Path-to-Ground Workbench Mat |
|---|---|-----------------------------|----------------|--|---|
| Mat Top Kits | <u>Blue</u> | Grey | <u>Green</u> | _ | Green Mat Specifically for Use in |
| 24" x 36" (0.6m x 0.9m) | <u>42460</u> | <u>42470</u> | | | Lead-Free Designated Areas |
| 24" x 48" (0.6m x 1.2m) | <u>42465</u> | <u>42475</u> | <u>42480</u> | | |
| Item #14213 Common Point Ground | Kit is included | with Mat Top | Kits. | MAN MAN | |
| Roll | <u>Blue</u> | <u>Grey</u> | <u>Green</u> | Compatible for use with | |
| 24" x 50' (0.6m x 15.2m) | <u>42500</u> | <u>42515</u> | <u>42535</u> | ≥ continuous 🗧 | |
| 30" x 50' (0.76m x 15.2m) | <u>42516</u> | 42517 | | monitors | |
| 36" x 50' (0.9m x 15.2m) | <u>42518</u> | <u>42519</u> | | Samuri | |
| 48" x 50' (1.2m x 15.2m) | <u>42520</u> | <u>42530</u> | | (HALL CON | |
| Grounding hardware is not included w | vith rolls. See | pages 38-40 f | for hardware. | 30 | 425 |
| vinyl layers and conductive delamination; reduces unir RoHS compliant Made in America | | ernative gro | | | 42535 |
| | | | | | |
| RTT: 10E6 - 10E8 ohms per Download Drawing <u>PM-112</u> Download Technical Bulletin | | S4.1 | | | Look for the Statfree [®] brand on Desco ESD matting - for your protection and |
| Download Drawing <u>PM-112</u> Download Technical Bulletin Statfree O TM I | <u>TB-2000</u> Dissip | | e 3 La | yer Vinyl | on Desco ESD matting - |
| Download Drawing <u>PM-112</u> Download Technical Bulletin Statfree O [™] I <u>Roll</u> | <u>TB-2000</u> Dissip <u>Blue</u> | | e 3 La | yer Vinyl | on Desco ESD matting - for your protection and |
| Download Drawing <u>PM-112</u> Download Technical Bulletin Statfree O TM I <u>Roll</u> 24" x 60' (0.6m x 18.2m) | <u>TB-2000</u> Dissip <u>Blue</u> <u>65000</u> | | e 3 La | | on Desco ESD matting - for your protection and |
| Download Drawing <u>PM-112</u> Download Technical Bulletin Statfree O TM I <u>Roll</u> 24" x 60' (0.6m x 18.2m) 30" x 60' (0.8m x 18.3m) | <u>TB-2000</u> Dissip <u>Blue</u> <u>65000</u> <u>65001</u> | | e 3 La | Compatible for use with | on Desco ESD matting - for your protection and |
| Download Drawing PM-112 Download Technical Bulletin Statfree OTM Roll 24" x 60' (0.6m x 18.2m) 30" x 60' (0.8m x 18.3m) 36" x 60' (0.9m x 18.3m) | TB-2000 Dissip Blue 65000 65001 65002 | | e 3 La | Compatible | on Desco ESD matting - for your protection and |
| Download Drawing PM-112 Download Technical Bulletin | TB-2000 Dissip Blue 65000 65001 65002 | | e 3 La | Compatible for use with continuous | on Desco ESD matting - for your protection and |
| Download Drawing PM-112 Download Technical Bulletin Statfree O TM I Roll 24" x 60' (0.6m x 18.2m) 30" x 60' (0.8m x 18.3m) 36" x 60' (0.9m x 18.3m) Grounding hardware is not included v | TB-2000 DISSIP Blue 65000 65001 65002 with rolls. | Dative | nat for trays, | Compatible for use with continuous | on Desco ESD matting - for your protection and |
| Download Drawing <u>PM-112</u> Download Technical Bulletin Statfree OTM I <u>Roll</u> 24" x 60' (0.6m x 18.2m) 30" x 60' (0.8m x 18.3m) 36" x 60' (0.9m x 18.3m) Grounding hardware is not included w See pages 38-40 for hardware. • Thick, energy absorbing; end carts and benches • As worksurface or shelf man physical shock | TB-2000 Dissip Blue 65000 65001 65002 with rolls. excellent cu | Dative shioning m | nat for trays, | Compatible for use with continuous | on Desco ESD matting - for your protection and auditing purposes |

MATTING MATERIAL





See our products being Made in America on our web site: DescoIndustries.com/Factories

All mats are date and

lot coded for quality

control traceability

Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com



Worksurface Mats

Statfree B2[™] Dissipative 2 Layer Vinyl

| <u>Mat Top Kits</u> | <u>Blue</u> | Mat Top Kits | <u>Blue</u> |
|-------------------------|----------------|-------------------------|--------------|
| 16" x 24" (0.4m x 0.6m) | <u>66165</u> * | 30" x 60" (0.8m x 1.5m) | <u>66167</u> |
| 24" x 36" (0.6m x 0.9m) | <u>66164</u> | 30" x 72" (0.8m x 1.8m) | <u>66168</u> |
| 24" x 48" (0.6m x 1.2m) | <u>66166</u> | 36" x 72" (0.9m x 1.8m) | <u>66169</u> |

Compatible for use with continuous monitors

Item #14213 Common Point Ground Kit is included with Mat Top Kits.

* With 1" round corners. Does not include 14213 Common Point Ground kit.

| <u>Roll</u> | <u>Blue</u> |
|--------------------------|--------------|
| 24" x 50' (0.6m x 15.2m) | <u>66160</u> |
| 30" x 50' (0.8m x 15.2m) | <u>66161</u> |
| 36" x 50' (0.9m x 15.2m) | <u>66162</u> |
| 48" x 50' (1.2m x 15.2m) | <u>66163</u> |

Grounding hardware is not included with rolls. See <u>pages 38-40</u> for hardware.

- Economical choice for use with continuous monitors
- Dissipative surface for consistent charge removal
- Slightly embossed conductive base for reliable path-to-ground
- Made in America

RTT (top side): 10E6-10E8 Ohms per ANSI/ESD S4.1 RTT (bottom, stipple side): <10E5 ohms per ANSI/ESD S4.1 Thickness: 0.060"

Download Drawing PM-127 and Technical Bulletin TB-2000

Look for the Statfree[®] brand on Desco ESD matting for your protection and auditing purposes

66160

16213

16201

Statfree B[™] Dissipative Homogeneous Vinyl

| <u>Mat Top Kits</u> | <u>Beige</u> | <u>Blue</u> | |
|---|--------------|--------------|---|
| 24" x 36" (0.6m x 0.9m), .100" thick | <u>16201</u> | <u>16213</u> | |
| 24" x 48" (0.6m x 1.2m), .100" thick | <u>16202</u> | <u>16214</u> | |
| Item #14213 Common Point Ground Kit is included | with Mat Top | Kits. | |
| Roll | <u>Beige</u> | <u>Blue</u> | _ |
| 24" x 40' (0.6m x 12.2m), .100" thick | <u>16250</u> | <u>16260</u> | |
| 24" x 100' (0.6m x 30.5m), .100" thick | <u>16251</u> | <u>16261</u> | |
| 30" x 40' (0.76m x 12.2m), .100" thick | <u>16255</u> | <u>16265</u> | |
| 30" x 100' (0.76m x 30.5m), .100" thick | | <u>16266</u> | |
| 36" x 40' (0.9m x 12.2m), .100" thick | <u>16280</u> | <u>16282</u> | |
| 36" x 100' (0.9m x 30.5m), .100" thick | | <u>16267</u> | |
| 48" x 40' (1.2m x 12.2m), .100" thick | <u>16281</u> | <u>16283</u> | |
| 24" x 100' (0.6m x 30.5m), .060" thick | | <u>16290</u> | |
| 30" x 100' (0.76m x 30.5m), .060" thick | | <u>16292</u> | |
| 36" x 100' (0.9m x 30.5m), .060" thick | | <u>16291</u> | |
| 48" x 100' (1.2m x 30.5m), .060" thick | | <u>16293</u> | |
| | | | |

Grounding hardware is not included with rolls. See pages 38-40 for hardware.

Economical, homogeneous vinyl

- Not compatible with continuous monitors
- RoHS compliant

Made in America

RTT: 10E8 Ohms per ANSI/ESD S4.1 **Thickness:** 0.100" (2.5mm) and 0.060" (1.5mm)

Download Drawing PM-078 and Technical Bulletin TB-2000

All mats are date and lot coded for quality control traceability

0.60" Thick Material is Economical Choice for General Assembly, Shelving or Cafeteria-Style Trays



Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com

MATTING MATERIAL



Micastat® Dissipative Laminate

| Sheet Size (0.038" thick) | <u>Beige</u> | <u>Blue</u> | <u>Grey</u> | <u>White</u> |
|------------------------------------|--------------|---------------|--------------|--------------|
| 30" x 10' (0.8m x 3.0m) | <u>10200</u> | <u>10180</u> | <u>10290</u> | <u>10240</u> |
| 30" x 12' (0.8m x 3.7m) | <u>10202</u> | <u>10181</u> | <u>10291</u> | <u>10242</u> |
| 36" x 8' (0.9m x 2.4m) | <u>10203</u> | <u>10182</u> | <u>10292</u> | |
| 36" x 10' (0.9m x 3.0m) | <u>10204</u> | <u>10183</u> | <u>10293</u> | <u>10244</u> |
| 36" x 12' (0.9m x 3.7m) | <u>10206</u> | <u>10184</u> | <u>10294</u> | <u>10246</u> |
| 48" x 8' (1.2m x 2.4m) | <u>10208</u> | <u>10185</u> | <u>10295</u> | <u>10248</u> |
| 48" x 12' (1.2m x 3.7m) | <u>10212</u> | <u>10187</u> | <u>10297</u> | <u>10252</u> |
| 60" x 12' (1.5m x 3.7m) | <u>10215</u> | <u>10190</u> | <u>10300</u> | <u>10255</u> |
| Grounding hardware is not included | anna an the | 8-10 for hard | ware | |

Grounding hardware is not included. See pages 38-40 for hardware.

| Mat Top Size (0.038" thick) | <u>Beige</u> | <u>Blue</u> | <u>Grey</u> | <u>Green</u> |
|-----------------------------|--------------|--------------|--------------|--------------|
| 24" x 36" (0.6m x 0.9m) | <u>10310</u> | <u>10344</u> | <u>10342</u> | <u>10393</u> |
| 24" x 48" (0.6m x 1.2m) | <u>10350</u> | <u>10384</u> | <u>10382</u> | <u>10394</u> |

Item #09826 Common Point Ground Cord is included.

Mat top kits feature 1.5" radiused corners, 10mm snap, and peel and stick installation tape.

- High pressure laminate; resistant to hot solder and most solvents; static control properties will continue for the lifetime of the material. Exceeds NEMA standards for wear resistance.
- RoHS compliant Made in America

RTT: 10E9 ohms per ANSI/ESD S4.1

Download Drawing <u>10200</u> Download Technical Bulletin <u>TB-2091</u>

Laminate Grounding System

14240 Laminate Grounding System

• Common point ground system for benches with laminate tops; includes one 10 ft. (3.0m) grounding wire with one megohm resistor and ring terminal, and one grounding bolt assembly with single wrist strap banana jack connection terminal.

Made in America

Download Technical Bulletin TB-2091

Flush Mount Laminate Ground Insert

| <u>14246</u> | Flush Mount Laminate Ground Insert with 09740 Bench Ground |
|--------------|--|
| <u>14244</u> | Flush Mount Laminate Ground Insert |
| <u>14242</u> | Installation Tool for Flush Mount Insert |
| | |

- Flush-to-the-Surface Ground for Static Dissipative Laminate such as Micastat[®]; makes a direct connection with the conductive grounding layer of the laminate
- Made in America

Download Technical Bulletin TB-2091

Carpet Gripper Tape

Flexible hook tape on one side (secures to carpet), adhesive tape on the other side (secures to mat).

Click HERE for complete details



45050

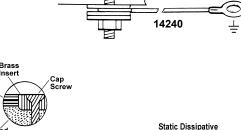
See our products being Made in America on our web site: DescoIndustries.com/Factories

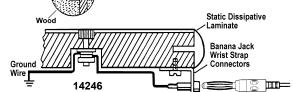
Micastat[®] has Lifetime Electricals

White

Beige

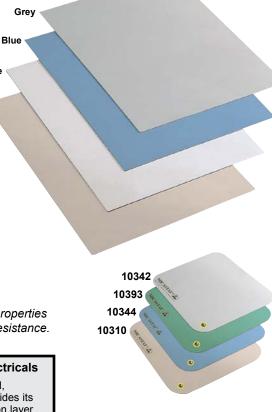
Micastat[®] has a physical, patented, carbon inner sheet layer that provides its electrical performance. This carbon layer and electrical properties will exist until it is physically removed or destroyed.







Worksurface Mats



MATTING MATERIAL

Laminate

Conduc Laver



Floor Mats

Statfree CV[™] Conductive Vinyl

15006 48" x 72" (1.2m x 1.8m), 0.125" (3.2mm) thick, Mat *Includes* 14234 *ground kit.*

| <u>15001</u> | 48" x 100' (1.2m x 30.5m), 0.060" (1.5mm) thick, Roll |
|--------------|---|
| <u>15005</u> | 48" x 40' (1.2m x 12.2m), 0.125" (3.2mm) thick, Roll |
| <u>15000</u> | 48" x 40' (1.2m x 12.2m), 0.060" (1.5mm) thick, Roll |
| - ·· | |

Grounding hardware not included with rolls. See <u>pages 38-40</u> for hardware.

- Guaranteed to lay flat; excellent floor mat on hard surface and carpeted areas using rolling chairs and carts
- Exceeds ANSI/ESD S20.20 required limit of < 1 x 10E9 ohms for ESD protected flooring and shelving
- Suitable as floor in ANSI/ESD STM 97.1 floor-footwear system
- Made in America

MATTING MATERIA

RTT: 10E3 - 10E5 ohms per ANSI/ESD S7.1 Thickness: 0.060" (1.5mm) and 0.125" (3.2mm)

Download Drawing PM-118 and Technical Bulletin TB-2000

Statfree S Plus™ Dissipative Anti-Fatigue Floor Runner

82066 36" x 60' (0.9m x 18.3m), Roll

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Combines a cross-link vinyl/nitrile rubber construction; three times the resilience of ordinary vinyl foam matting
- Meets ANSI/ESD S20.20 required limit <1 x 10E9 ohms for ESD floor
- Extremely durable embossed surface safe surface for workers;
- Beveled edges provide added safety; allows people and equipment to pass safely and easily
- Made in America

RTT: 10E7 - 10E8 ohms per ANSI/ESD S7.1 **Thickness:** 0.375" (9.5mm)

Download Drawing PM-120 and Technical Bulletin TB-2000

Statfree S™ Dissipative Anti-Fatigue Vinyl

82064 36" x 60' (0.9m x 18.3m), Grey, Roll

82063 36" x 60' (0.9m x 18.3m), Brown, Roll

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Homogeneous foam vinyl; provides economical anti-fatigue properties, improving worker comfort
- For use where meeting ANSI/ESD S20.20 is not a requirement
 Slip resistant and soil resistant heavy embossed texture safe
- surface for workers; mat stays clean

Made in America

RTT: 10E9 - 10E10 ohms per ANSI/ESD S7.1 **Thickness:** 0.375" (9.5mm)

Download Drawing PM-071 and Technical Bulletin TB-2000

Excellent Floor Mat on Hard Surface & Carpeted Areas Using Rolling Chairs and Carts Suitable as floor in ANSI/ ESD STM97.1 floor-footwear system

All mats are date and lot coded for quality control traceability

82066

Economical Anti-Fatigue Vinyl Mat and Runner

Anti-Fatigue Vinyl/

Nitrile Floor Runner

82063, 82064



See our products being Made in America on our web site: DescoIndustries.com/Factories

15005



Floor Mats

Statfree F Plus[™] Conductive Corrugated Vinyl

16007 48" x 72" (1.2m x 1.8m), Mat

Includes 14234 ground kit.

16008 48" x 40' (1.2m x 12.2m), Roll

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Corrugated slip resistant surface; provides excellent traction in wet environments
- · Easy to cut; configure to your requirements
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Made in America

RTT: 10E3 - 10E5 ohms per ANSI/ESD S7.1 **Thickness:** 0.125" (3.2mm)

Download Drawing PM-124

Statfree A[™] Conductive Interlocking Rubber

40910 Stand-Alone Mat, 28" x 36" (0.7m x 0.9m)

Includes 14234 ground kit.

40915 Center Section, 28" x 36" (0.7m x 0.9m)

40920 End Section, 28" x 36" (0.7m x 0.9m)

- · Interlocking sections; easy to configure custom lengths
- · Premium rubber material; resists damage from heat and common solvents
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Available as end, middle and stand-alone mat; configure to fit your requirements
 Made in America

RTT: 10E3 - 10E4 ohms per ANSI/ESD S7.1 **Thickness:** 0.50" (12.7mm)

Economical Mats and Variable Length Aisle Runners

Economical Vinvl for

Floor Mats and Runners

Download Drawing PM-095 and Technical Bulletin TB-2000

Statfree DPL Plus™ Diamond Plate

 40980
 Floor Mat, 36" x 48" (0.9m x 1.2m)

 40981
 Floor Mat, 36" x 60" (0.9m x 1.5m)

 Includes 14234 ground kit.

Excellent Conductive Anti-Fatigue Floor Mat

40982Floor Runner, 36" x 60' (0.9m x 18.3m)40983Floor Runner, 36" x 75' (0.9m x 22.9m)

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Homogeneous vinyl material laminated to double-thick rubber foam base; provides anti-fatigue properties for worker comfort and productivity (excluding 40983, which is mat only)
- · Adopted from industrial safety applications; proven safety and anti-fatigue product
- · Diamond plate surface; provides traction in wet areas
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Made in America

RTT: 10E3 - 10E5 ohms per ANSI/ESD S7.1 Thickness: 0.45" (11.4mm) for items 40980, 40981, 40982 0.225" (5.7mm) for item 40983

Download Drawings PM-125 and PM-126

See our products being Made in America on our web site: DescoIndustries.com/Factories 16008

Suitable as floor in ANSI/ ESD STM97.1 floor-footwear system

40915

40980

All mats are date and lot coded for quality

control traceability

Suitable as floor in ANSI/ ESD STM97.1 floor-footwear system

luct

Suitable as floor in ANSI/ ESD STM97.1 floor-footwear system



Floor Mats

Statfree i[™] Conductive Interlocking Ergonomic Rubber

40930 24" x 36" (0.6m x 0.9m) Section

40931 36" x 48" (0.9m x 1.2m) Section

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Ergonomic design dome/support cell structure; suspended bounce feel, and matrix of "tri-radial" supports firming up as weight is applied improves worker comfort and productivity
- Durable homogenous rubber; chemical resistant, will never delaminate
- Patented interlocking strip (Patent No. 5,630,304); easily configures to fit your requirements; no need to order special lengths
- Suitable for clean rooms click <u>HERE</u> to see test report
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Superior warranty limited lifetime and 8 year ergonomic warranty. See <u>Desco.com</u> for details.
 Made in America

Made in America

RTT: 10E4 - 10E5 ohms per ANSI/ESD S7.1 **Thickness:** 0.50" (12.7mm)

Download Drawing PM-107 and Technical Bulletin TB-2000

Statfree i Fused™ Conductive Ergonomic Rubber Flooring System

| <u>40950</u> | 2' wide in 3' length increments up to 120 feet |
|--------------|--|
| <u>40951</u> | 3' wide in 2' length increments up to 120 feet |
| <u>40952</u> | 4' wide in 3' length increments up to 120 feet |
| <u>40953</u> | 6' wide in 2' length increments up to 60 feet |
| <u>40954</u> | 8' wide in 3' length increments up to 60 feet |

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- See Statfree i[™] features and benefits
- Various lengths are manufactured by chemically bonding seams, creating many length sections in over 200 sizes; creates safe floor allowing personnel, to pass freely, increasing worker safety.
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Suitable for clean rooms
- Suitable as floor in ANSI/ESD STM 97.1 floor-footwear system
- Superior warranty limited lifetime and 8 year ergonomic
- warranty. See <u>Desco.com</u> for details. • Made in America

RTT: 10E4 - 10E5 ohms per ANSI/ESD S7.1 **Thickness:** 0.50" (12.7mm)

Download Drawing PM-119 and Technical Bulletin TB-2000





40952

Use Where Floor Runners are Needed





Floor Mats

Statfree EB™ Conductive Ergonomic Rubber

40935 Stand-Alone Mat, 36" x 60" (0.9m x 1.5m)

Grounding hardware not included. See pages 38-40 for hardware.

- Ergonomic bubble air cell design; improves worker comfort and productivity
- Firm support gives, but stays cleaner; sharper looking facility with lower maintenance costs
- Exceeds ANSI/ESD S20.20 required limit of <1 x 10E9 ohms for ESD floor
- Suitable as floor in ANSI/ESD floor/footwear system
- Made in America

RTT: 10E3 - 10E5 ohms per ANSI/ESD S7.1 **Thickness:** 0.50" (12.7mm)

Download Drawing PM-117 and Technical Bulletin TB-2000



Statfree G2[™] Conductive Smooth Rubber

82067 48" x 72" (1.2m x 1.8m), Mat

Includes 14234 ground kit.

82068 48" x 40' (1.2m x 12.2m), Roll

Grounding hardware not included with rolls. See pages 38-40 for hardware.

- Heat, chemical and abrasion resistant; excellent floor mat for around wave solder machines and other challenging manufacturing environments
- · Easy to cut; configure to fit your requirements
- Durable homogeneous rubber; will never delaminate
- Exceeds ANSI/ESD S20.20 required limit of
- <1 x 10E9 ohms for ESD floor
- Suitable as floor in ANSI/ESD floor/footwear system
- Made in America

RTT: 10E3 - 10E5 ohms per ANSI/ESD S7.1 **Thickness:** 0.060" (1.5mm)

Download Drawing PM-106 and Technical Bulletin TB-2000

All mats are date and

lot coded for quality

control traceability

82068

Durable for High Traffic Areas

Suitable as

floor in ANSI/ ESD STM97

floor-footwear system

Look for the Statfree[®] brand on Desco ESD matting for your protection and auditing purposes



Double Sided Adhesive Tape

Use on mats that slide around or curl and create a tripping hazard; great choice for securing mats to metal carts and workstation surfaces

Click HERE for complete details



See our products being Made in America on our web site: DescoIndustries.com/Factories



Worksurface Grounding

on our web site:

DescoIndustries.com/Factories



WATTING MATERIA

Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com



Worksurface Grounding

Mat Ground Cord with **10MM Socket**

09817 Without Resistor, 10mm Socket, 10' Cord 09818 With Resistor, 10mm Socket 10' Cord

- 10mm (0.395") female snap socket easily snaps to mat stud
- · Ground cord terminated with ring terminal allows easy attachment to electrical ground
- Made in America

Download Drawing 09817, Technical Bulletin TB-2007

Floor and Worksurface Ground Cord with 10MM Stud

| <u>09813</u> | With Resistor, 10mm Stud 15' Cord |
|--------------|--|
| <u>09814</u> | Without Resistor, 10mm Stud, 15' Cord |
| <u>14234</u> | Complete Floor Ground Kit, With Resistor |

- Low profile reduces inadvertent snagging or tripping that may disconnect ground cord
- 10mm (0.395") snap stud easily snaps to mat socket, flush to mat surface
- Stud has threaded hole; 6-32x1/4" flat head screw and countersunk washer are provided; allows ground cord to be optionally bolted to mat; keeps cord from disconnecting; ensures proper grounding
- Available as a kit; 14234 kit includes one 09813 ground cord and one 09864 universal snap kit
- Made in America
- Download Drawing 09814, Technical Bulletin TB-2007

Ground Cord with Banana Plug

09816

Without Resistor, 10mm Stud, 6' Cord

- · Ground cord terminated with a banana plug; connects from mat socket to banana jack
- Low profile; reduces inadvertent snagging that may disconnect ground cord
- 10mm (0.395") snap stud; easily snaps to mat socket, flush to mat surface
- Stud has threaded hole; 6-32x1/4" flat head screw and countersunk washer are provided; allows ground cord to be optionally bolted to mat
- Made in America

Download Drawing 09816

Should a Ground Cord Have a Current Limiting Resistor?

The ESD Association recommends hard ground with no resistor; however, it is permitted for non-ESD control purposes to include a 1 megohm current limiting resistor. See Grounding standard ANSI/ESD S6.1 section 5.3.3.

In order to clearly identify ground cords with and without resistors, Desco manufactures ground cords with different colored insulation. A green-yellow cord has no resistor and a black cord has an 1 megohm resistor.





09818

Screw allows ground cord to be bolted to mat; keeps cord from disconnecting.





Worksurface Grounding

09837

6' Ground cord included with Multi

Grounding Hub (image not to scale)

Multi Grounding Hub

09837 Without Resistor, 12 Ground Points, 6' Cord

- Six banana jacks and six 10-32 screws with split washer; provides numerous groundable points for wrist straps, carts and other items
- Includes one 6' long ground cord terminated with 0.200" ID #10 ring terminal; allows easy attachment to electrical ground
- Includes mounting hardware, one 10-32 x 1.75" socket headscrew with split washer and nut; easy to install, just drill hole through table top or leg and tighten nut to secure
 Made in America

Download Drawing 09837, Technical Bulletins TB-2003 and TB-2007

Universal Snap Kit

09864 Universal Snap Kit

- Snap is user installable; allows installation of either snap stud or socket exactly where needed
- Kit includes a 10mm stud, 10 mm socket, long screw and short screw; allows for user preference and can be used for a range of mat thickness
- ESD common point ground symbol label; used to indicate the location of an acceptable common point ground as defined by ANSI/ESD S8.1 and S6.1
- Made in America

MATTING MATERIAL

Download Drawing 09864

Push and Clinch Snaps

| <u>09863</u> | 10mm Socket |
|--------------|-------------|
| <u>09861</u> | 10mm Stud |

- Pronged 10mm stud or socket snap
- Choice for matting with buried conductive scrim, i.e. Statfree Z2™
- Push and clinch installation; easy to use; secure installation
- Common point ground symbol label; used to indicate the location of an acceptable common point ground as defined by ANSI/ESD-S8.1 and S6.1
- Made in America

Ground Point Adapters

| Alligator Clip | |
|---|--|
| Large Clip with Banana Jack 10-32 x 1/2" threaded hole accepts standard banana plug or 10-32 thread | |
| Ring Terminal Banana Jack | |
| Stacking Snap Banana Jack, 10mm Snap and 10mm Socket | 4 |
| | Large Clip with Banana Jack 10-32 x 1/2" threaded hole accepts standard banana plug or 10-32 thread Ring Terminal Banana Jack Stacking Snap Banana Jack, 10mm Snap |

- · All adapters designed to accept standard banana plug
- Made in America





09861

09863





See our products being Made in America on our web site: DescoIndustries.com/Factories



Statshield[®] Premium Metal In Green ESD Shielding Bags

| Without Zipper | | Without | <u>Zipper</u> | Without Zipper | | |
|----------------|--------------|--------------|---------------|----------------|--------------|--|
| ltem | Size (W x L) | ltem | Size (W x L) | ltem | Size (W x L) | |
| <u>12780</u> | 4" x 6" | <u>12785</u> | 10" x 12" | <u>12789</u> | 15" x 18" | |
| <u>12781</u> | 5" x 8" | <u>12786</u> | 10" x 14" | <u>12790</u> | 18" x 18" | |
| <u>12782</u> | 6" x 10" | <u>12787</u> | 10" x 24" | <u>12791</u> | 18" x 24" | |
| <u>12783</u> | 8" x 10" | <u>12792</u> | 12" x 16" | | | |
| <u>12784</u> | 8" x 12" | <u>12788</u> | 12" x 18" | | | |

- Appropriate ESD packaging for Lead-Free RoHS products
- ESD Shielding; meets ANSI/ESD S541 and S20.20
- Provides easy identification of Lead-Free assemblies and components in the manufacturing process
- Integral antistatic, low tribocharging properties
- Identified with ESD Protective Symbol and RoHS compliant lead-free symbol
- Meets ANSI/ESD S20.20 and MIL-PRF-81705D Type III
- Static shielding energy penetration <15nJ ANSI/ESD S11.31
- Proprietary film
- Made in America

Outer Surface: <10E10 ohms Aluminum Layer: <10E2 ohms Inner Surface: <10E10 ohms Per ANSI/ESD S11.11

Thickness: .003" (Nominal ± 10%)

Download Drawing 12780 and MSDS TB-7024



Statshield[®] Hi-Strength Dip Tube Metal In Bags

Without Zipper

| ltem | Size (W x L) |
|--------------|--------------|
| <u>13920</u> | 4" x 25" |
| <u>13921</u> | 4" x 30" |
| <u>13922</u> | 8" x 25" |
| <u>13923</u> | 8" x 30" |
| <u>13924</u> | 10" x 25" |
| 13925 | 10" x 30" |

Mixed Unsortable Plastic Scrap

Mixed unsortable plastic scrap shall contain assorted plastics of multiple grades that are co-extruded, bonded or laminated together which are unsortable into individual grades. Desco's bags are recyclable

- Reinforced strength designed for packaging dip tubes; eliminates puncture problems with standard Type III shielding bags when packaging Dip Rail Tubes
- Puncture resistance >19 pounds
- Meets ANSI/ESD S541, ANSI/ESD S20.20 and Mil-PRF-81705D Type III
- Integral antistatic, low tribocharging properties; bag contents will not electrostatically charge during movement
- Static shielding energy penetration <15nJ ANSI/ESD S11.31
- Made in America

Thickness: .0031" (Nominal ± 10%)

Download Drawing 13920



See our products being Made in America on our web site: DescoIndustries.com/Factories Desco Bags are printed with ESD protective symbol and date coded for quality control traceability Let Us Show You How to Reduce Your Cost of Packaging

12783

All Desco bags are

RoHS and REACH compliant



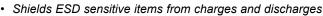
More Bag

Sizes at

esco.con

Statshield[®] Transparent Metal In Standard ESD Shielding Bags

| With Zipper | | With Zipper | | Without Zipper | | Without Zipper | |
|--------------|--------------|--------------|--------------|----------------|--------------|----------------|--------------|
| ltem | Size (W x L) | ltem | Size (W x L) | ltem | Size (W x L) | ltem | Size (W x L) |
| <u>13605</u> | 3" x 5" | <u>13670</u> | 10" x 12" | <u>13415</u> | 4" x 6" | <u>13475</u> | 10" x 14" |
| <u>13615</u> | 4" x 6" | <u>13700</u> | 12" x 16" | <u>13430</u> | 5" x 8" | <u>13500</u> | 12" x 16" |
| <u>13630</u> | 5" x 8" | <u>13705</u> | 12" x 18" | <u>13445</u> | 6" x 10" | <u>13505</u> | 12" x 18" |
| <u>13640</u> | 6" x 8" | <u>13715</u> | 15" x 18" | <u>13465</u> | 8" x 12" | <u>13515</u> | 15" x 18" |
| <u>13660</u> | 8" x 10" | <u>13725</u> | 18" x 24" | <u>13470</u> | 10" x 12" | <u>13524</u> | 18" x 24" |



- · Choice for shipping outside ESD protected area
- Most commonly used shielding bag; high volume manufacturing provides value for the customer
- Meets ANSI/ESD S541, ANSI/ESD S20.20 and Mil-PRF-81705D Type III
- 40% light transmission; allows for easy identification of bag contents
- Integral static dissipative properties; not topically treated, not humidity dependent, won't wear off
- RoHS and REACH compliant
- Made in America

Resistance of outer surface: <10E11 ohms Resistance of metal layer: <10E2 ohms Resistance of inner surface: <10E11 ohms Per ANSI/ESD S11.11

Thickness: .003" (Nominal ± 10%)

Download Drawing <u>13605</u> (Antistatic Zipper) and Drawing <u>13405</u> (Without Zipper)



13465

Desco Bags are printed with ESD protective symbol and date coded for quality control traceability

Statshield[®] Transparent Metal Out ESD Shielding Bags

| With Zip | per | With Zipper | | Without Zipper Without | | Without | <u>Zipper</u> | NIMMU |
|--------------|--------------|--------------|--------------|------------------------|--------------|--------------|---------------|------------------------|
| ltem | Size (W x L) | ltem | Size (W x L) | Item | Size (W x L) | ltem | Size (W x L) | |
| <u>13205</u> | 3" x 5" | <u>13270</u> | 10" x 12" | <u>13010</u> | 3" x 5" | <u>13075</u> | 10" x 12" | More Bag Z Sizes at |
| <u>13215</u> | 4" x 6" | <u>13275</u> | 10" x 14" | <u>13020</u> | 4" x 6" | <u>13080</u> | 10" x 14" | Z Desco.com |
| <u>13230</u> | 5" x 8" | <u>13300</u> | 12" x 16" | <u>13050</u> | 6" x 10" | <u>13090</u> | 10" x 24" | man |
| <u>13245</u> | 6" x 10" | <u>13315</u> | 15" x 18" | <u>13065</u> | 8" x 10" | <u>13115</u> | 12" x 18" | www. |
| <u>13262</u> | 8" x 10" | <u>13325</u> | 18" x 24" | <u>13070</u> | 8" x 12" | <u>13125</u> | 15" x 18" | |

All Desco bags are

RoHS and REACH

compliant

- · Shields ESD sensitive items from charges and discharges
- Use for shipping outside ESD protected area
- · Provides rapid charge draining when placed on a dissipative worksurface
- Aluminum metal outer layer of laminated film; metal out required by many end users
- Meets ANSI/ESD S541, ANSI/ESD S20.20 and Mil-PRF-81705D Type III
- 40% light transmission; allows for identification of bag contents
- RoHS and REACH compliant
- Made in America

Resistance of outer surface: <10E8 ohms Resistance of metal layer: <10E2 ohms Resistance of inner surface: <10E11 ohms Per ANSI/ESD S11.11

Thickness: .003" (Nominal ± 10%)

Download Drawing 13205 (Anti-Static Zipper) and Drawing 13010 (Without Zipper)

Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com



13065



See our products being Made in America on our web site: DescoIndustries.com/Factories



Statshield® Foil Moisture Barrier Bags

| Item | Size (W x L) |
|--------------|--------------|
| <u>13950</u> | 10" x 20" |
| <u>13951</u> | 10" x 30" |
| <u>13952</u> | 12" x 20" |
| <u>13953</u> | 14" x 16" |
| <u>13954</u> | 16" x 18" |
| <u>13955</u> | 18" x 20" |

- Excellent choice for moisture barrier protection
- WVTR < 0.0003 grams per ASTM F1249-90
- ESD/EMI/RFI provides high frequency protection and static shielding
- Meets JEDEC-STD-033B, ANSI/ESD S541, and ANSI/ESD S20.20
- >25 # puncture resistance
- Meets flex durability F392-93 condition E test
- · Ideal for vacuum packaging and nitrogen flushing
- Meets Mil-PRF-81705D Type I
- RoHS and REACH compliant
- Made in America

Thickness: .004" (Nominal ± 10%)

Download Drawing 13950



Statshield[®] ESD Moisture Barrier Bags

| ltem | Size (W x L) | ltem | Size (W x L) |
|--------------|--------------|--------------|--------------|
| <u>13805</u> | 4" x 24" | <u>13822</u> | 10" x 30" |
| <u>13806</u> | 5" x 8" | <u>13824</u> | 12" x 16" |
| <u>13808</u> | 6" x 10" | <u>13826</u> | 12" x 18" |
| <u>13810</u> | 6" x 24" | <u>13828</u> | 15" x 18" |
| <u>13811</u> | 6" x 30" | <u>13829</u> | 16" x 18" |
| <u>13812</u> | 8" x 10" | <u>13830</u> | 18" x 18" |
| <u>13816</u> | 10" x 12" | <u>13832</u> | 18" x 24" |
| | | | |

- **<u>13820</u>** 10" x 24"
- < 0.02 grams MVTR</p>
- ESD/EMI provides high frequency protection and static shielding
- >20lb puncture strength
- Choice to protect ESD and/or moisture sensitive items
- ESD Shielding meets ANSI/ESD S541 and ANSI/ESD S20.20
- EMI shielding; meets requirements of Mil-PRF-81705D Type I
- Integral antistatic, low tribocharging properties; bag contents will not electrostatically charge during movement
- RoHS and REACH compliant
- Made in America

Thickness: .0035" (Nominal ± 10%)

Download Drawing 13806 and Technical Bulletin TB-2031



See our products being Made in America on our web site: DescoIndustries.com/Factories All Desco bags are RoHS and REACH compliant 13808

13950

Desco Bags are printed with ESD protective symbol and date coded

for quality control traceability



Statshield[®] ESD High Puncture Barrier Bags Item Size (WxL)

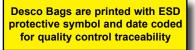
<u>13760</u> 4" x 6" <u>13761</u> 5" x 8" <u>13762</u> 6" x 10" **13763** 8" x 10" <u>13764</u> 10" x 12" <u>13765</u> 10" x 24" **13766** 10" x 30" 13767 12" x 16" **13768** 15" x 18" <u>13769</u> 18" x 18" <u>13770</u> 18" x 24"





- > 30lb puncture strength
- Superior packaging protection; 0.005 grams MVTR
- · ESD/EMI provides high frequency protection and static shielding
- Choice to protect ESD and/or moisture sensitive items
- ESD Shielding meets ANSI/ESD S541 and ANSI/ESD S20.20
- EMI Shielding; meets requirements of Mil-PRF-81705D Type I
- Integral antistatic, low tribocharging properties; bag contents will not electrostatically charge during movement
- Made in America
- Thickness: .0065" (Nominal ± 10%)

Download Drawing 13760 and Technical Bulletin TB-2031



STATSHIELD

13762

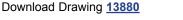
Statfree[®] Ultra Clear ESD Barrier Bags

| With Zipp | <u>ber</u> | <u>Without</u> | <u>Zipper</u> |
|--------------|--------------|----------------|---------------|
| ltem | Size (W x L) | ltem | Size (W x L) |
| <u>13879</u> | 3" x 5" | <u>13878</u> | 3" x 5" |
| <u>13880</u> | 4" x 6" | <u>13871</u> | 4" x 6" |
| <u>13881</u> | 5" x 8" | <u>13872</u> | 5" x 8" |
| <u>13882</u> | 8" x 10" | <u>13873</u> | 8" x 10" |
| <u>13883</u> | 10" x 12" | <u>13874</u> | 10" x 12" |
| <u>13884</u> | 12" x 16" | <u>13876</u> | 12" x 16" |
| <u>13885</u> | 12" x 18" | <u>13877</u> | 12" x 18" |

- Choice where shielding is not required for packaging ESD sensitive items or non-ESD items in ESD protected area
- Static dissipative, meets Mil-PRF-81705D Type II; superior choice over blue and pink poly bags
- Integral static dissipative properties; not topically treated, not humidity dependent, won't wear off
- Meets ANSI/ESD S541 and ANSI/ESD S20.20 for use inside EPA
- Made in America

Resistance of inner and outer layer: <10E11 ohms per ANSI/ESD S11.11 **Thickness:** .0035" (Nominal ± 10%)

Neurola e d'Dressie e 10000

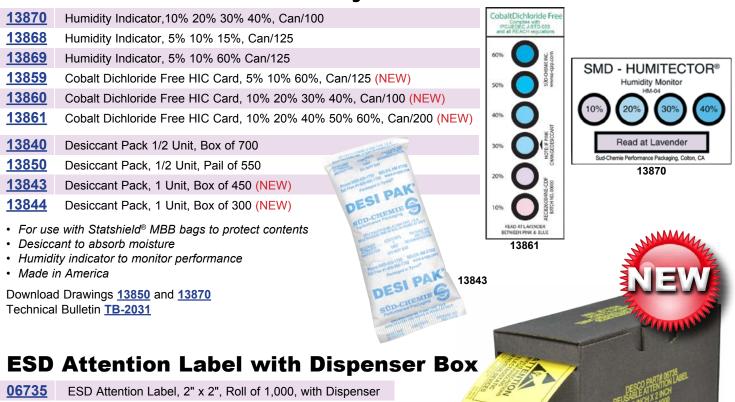






Packaging Accessories

Desiccant Packs and Humidity Indicator Cards



- 1,000 labels per roll 2 inch by 2 inch ESD Susceptibility Symbol (RS-471 Same Symbol per ANSI/ESD S8.1); use to identify assemblies and devices that have a sensitivity to ESD events
- · Use to close shielding bags and seal ESD protective packaging
- Integrated dispenser; simplifies the process of removing a label from its liner
- Dispenser is made with groundable static dissipative material (10E6 10E8 ohms); may be used around ESD susceptible items or placed on an ESD worksurface to connect ground
- · Made in America

Statfree® Conductive Foam

Desco's 12150-12660 Statfree® Conductive Foam minimizes charge generation. For complete details, visit: Desco.com

Labels

| <u>06770</u> | Contains ESDS Label, 2" wide x 3/4" high |
|--------------|---|
| <u>06727</u> | Caution Label, MIL-STD-129N, 2" x 2" |
| <u>06722</u> | Susceptibility Label, RS-471, 2" x 2" |
| <u>06723</u> | Susceptibility Label, RS-471, Spanish, 2" x 2" |
| <u>06730</u> | Susceptibility Label, RS-471, Reusable, 2" x 2" |
| | |

- Rolls, adhesive-backed labels (500 per roll)
- Use 06722, 06723, 06730, 06727 labels to identify ESD sensitive items when ESD handling precautions are required
- Use 06770 label to identify equipment that when opened has ESD sensitive (ESDS) items that are susceptible to ESD damage

Download Drawings 06770, 06727, 06722



See our products being Made in America on our web site: DescoIndustries.com/Factories 06770

IENI

06727



06770

CAUTION CONTAINS PARTS AND ASSEMBLIES SUSCEPTIBLE TO DAMAGE BY ELECTROSTATIC DISCHARGE (ESD) **OBSERVE PRECAUTIONS**

TENTION

06735

FOR HANDLING **ELECTROSTATIC** SENSITIVE DEVICES

06722

PACKAGING



Таре

COTP Antistatic Tape

A Desco Industries Inc. Brand

- Antistatic Cellulose Tape for general purpose applications; available as clear and with ESD symbols
- Antistatic Conductive Shielding Grid Tape for applications requiring EMI shielding
- Antistatic High Temp Masking Tape for applications masking PCB gold features for wave soldering
- Antistatic High Temp Polyimide Tape for higher temperature applications masking PCB gold features for wave soldering and IR reflow ovens

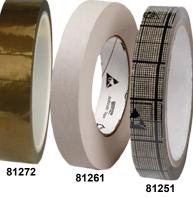
Download Drawings <u>79200</u>, <u>81220</u>, <u>81250</u>, <u>81260</u>, <u>81270</u> and <u>81282</u>, Technical Bulletin <u>TB-3010</u>

Note: Tapes store best when laid flat in a dry, well ventilated room with a reasonably consistent temperature of 20° C (68° F) and are protected from exposure to direct sunlight.

Improved Antistatic Cellulose Tape

- Greater temperature range: 14°F 160°F
- Non sloughing plastic core available
- New style: Clear with symbols and yellow stripe





Replace High Charging Regular Tape with Wescorp Antistatic Tape

| Tape* | 0.25" | 0.5" | 0.75" | 1" | 2" | Core | Length |
|---|--------------|--------------|--------------|--------------|--------------|------|--------|
| Antistatic Clear Cellulose, Paper Core | | <u>81220</u> | <u>81221</u> | <u>81222</u> | | 1" | 36 yds |
| | | <u>81223</u> | <u>81224</u> | <u>81225</u> | <u>81226</u> | 3" | 72 yds |
| Antistatic Clear Cellulose, | | <u>79200</u> | <u>79201</u> | <u>79202</u> | | 1" | 36 yds |
| Plastic Core | | <u>79203</u> | <u>79204</u> | <u>79205</u> | <u>79206</u> | 3" | 72 yds |
| Antistatic Clear Cellulose, with Symbols, Paper Core | | <u>81227</u> | <u>81228</u> | <u>81229</u> | <u>81230</u> | 3" | 72 yds |
| Antistatic Clear Cellulose, with Symbols, Plastic Core | | <u>79209</u> | <u>79210</u> | <u>79211</u> | <u>79212</u> | 3" | 72 yds |
| Antistatic Clear Cellulose, with Symbols and Yellow | | <u>79275</u> | <u>79276</u> | 79277 | <u>79278</u> | 3" | 72 yds |
| Stripe, Plastic Core | | 15210 | 10210 | | 10210 | | |
| Antistatic Conductive Shielding Grid, Paper Core | | <u>81250</u> | <u>81251</u> | <u>81252</u> | <u>81253</u> | 3" | 36 m |
| Antistatic High Temp Masking, Paper Core | | <u>81260</u> | <u>81261</u> | 81262 | | 3" | 60 yds |
| Antistatic High Temp Polyimide, Plastic Core | <u>81270</u> | <u>81271</u> | <u>81272</u> | <u>81273</u> | | 3" | 36 yds |
| Tape Dispenser | | | | | <u>81282</u> | 3" | |

*Tape widths are nominal metric ±0.8mm(±.030")

ESD Tape Dispenser

- Groundable housing and hardware all components to ESD tape dispenser can be grounded with ground cord to be used in ESD Protected Area
- Heavy Stainless steel construction minimizes foreign object debris, corrosion, and other contamination when used in clean or sensitive areas
- Separate spools turn independently; holds one 2-inch wide roll of tape or two rolls of tape that are 1-inch wide or less
- Made in America



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PACKAGING

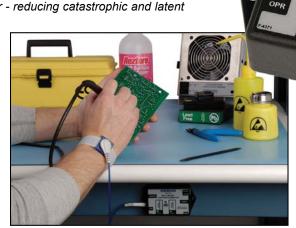


Single-Wire Monitors

Multi-Mount Continuous Monitor

- 19226 Multi-Mount Continuous Monitor, 120V
- **19227** Multi-Mount Continuous Monitor, 220V
- Designed to mount on equipment where worksurface monitoring is optional or not required. Monitors operator - reducing catastrophic and latent defects.
- Housing has tabs with holes, with screws and adhesive backed strips provided; optional mounting means unit is suitable to most any machinery or work, even in hard to reach locations
- Audible and LED visual alarms the instant a failure occurs; alerting user and supervisor of problem, allowing immediate corrective action
- Can be used with any brand single-wire wrist strap
- Made in America

Download Technical Bulletin TB-3028





Note: Continuous Monitors require a worksurface with conductive layer.

See Worksurface Mats on Page 29

Dual Operator Workstation Continuous Monitor with Satellites

19232 Dual Operator Continuous Monitor with Split Remote Satellites, 120 Volt

19233 Dual Operator Continuous Monitor with Split Remote Satellites, 220 Volt

19235 Replacement Satellite

- Control Unit LEDs indicate proper grounding of two mats and two operators; allows mounting Control Unit at eye level, not using any work surface area; illuminated LEDs continuously display grounding status
- Two Satellite Remote Monitors include monitored wrist strap ground, parking stud, and unmonitored ground for guest or equipment; versatile design allowing placement where desired up to 7 feet from control unit. Red LED will illuminate, but audio alarm will not sound when wrist strap coil cord is snapped on parking stud.
- · Can be used with any brand single-wire wrist strap
- Wave Distortion Technology provides real-time monitoring; pays for itself ensures ESD protected workstation, reducing
- catastrophic failures and latent defects • Made in America

Download Technical Bulletin TB-3027



Hardware provided - not shown)



DESCO

ade in America



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Full Time Continuous Monitor

19225 Continuous Monitor, Single Station, 120 Volt

- Monitor one operator, one ESD worksurface,
- and one ground
 Alarm signal status; can use to connect to light tower; allows additional workstation status above work environment
- IEC receptacle; allows easy cord installation and replacement
- Verifies proper wiring of AC outlet and ESD ground integrity
- Ensures electrical ground, operator ground, and mat circuit are all grounded to the same potential
- Two pin terminal block allows user to monitor and ground worksurface table mat or laminate worksurfaces
- Ongoing ground monitoring of ESD protective workstation; verifies proper grounding of outlet, operator, and worksurface
- Made in America

Download Technical Bulletin TB-3025



Jewel[®] Workstation Continuous Mini Monitor

19212 Continuous Monitor, Sapphire, 120 Volt

- Monitors one operator and one ESD worksurface
- Small size 2.77" x 2.07" (7cm x 5cm); snaps to mat, taking up minimal worksurface area
- Stand-by parking snap; keeps unit from going into alarm when user disconnects cord
- Can use with any brand single-wire wrist strap
- Wave Distortion Technology provides real-time monitoring; pays for itself - ensures ESD protected workstation, reducing catastrophic failures and latent defects
- Where continuous monitoring is used, wrist strap testing is not required per ANSI/ESD S1.1
- Made in America

Download Technical Bulletin TB-3004



Use Single-Wire Wrist Straps with Desco's Single-Wire Monitors

<u>See page 6 - 9</u>







Dual-Wire Monitors

Dual Wire Continuous Workstation Monitor

19665 Dual-Wire Continuous Monitor

- Monitoring of two operators and two ground connections independently; able to maintain two work operators and two worksurfaces at the same time to eliminate the risk of ESD damage from undetected wrist strap assembly failures
- Patented* Resistance Loop Monitoring Technology; provides continuous testing and verification of operator's connection to the ground
- Use with dual-wire wrist straps see pages 11 14
- Independent alarming conditions: Audible and visual; operator will be able to see alarm if noise level is high, or in contrast, able to hear the alarm without looking at monitor
- Made in America

Download Technical Bulletin TB-3019

*US Patent 6,052,053 and 6,205,408





Use Dual-Wire Wrist Straps with Desco's Dual-Wire Monitors.

See page 11 - 14

Monitor Calibration Unit

98220 Calibration Unit, for Single-Wire Monitors

- Used with <u>19226</u>, <u>19227</u>, <u>19232</u>, <u>19233</u>, <u>19225</u>, and <u>19212</u>
- NIST traceable unit for all single-wire Desco continuous monitors; only one calibration unit is needed for multiple single wire continuous monitors
- Multiple ranges for accurate performance and conformity testing in the field; allows the user to quickly verify whether a Desco single wire continuous monitor is operating within specifications
- NIST calibrated with certificate; calibrated with accepted procedures and standards traceable to the National Institute of Standards and Technology
- Made in America

Download Technical Bulletin TB-2082







Footwear / Wrist Strap Testers

Combo Tester X3

| <u>19276</u> | Combo Tester X3 with Dual Footplate |
|--------------|-------------------------------------|
| <u>19277</u> | Combo Tester X3 with Stand |
| <u>19255</u> | Stand for Use with Combo Tester X3 |
| 10070 | |

- 19259 Combo Tester Limit Comparator NEW
- Wrist strap and ESD footwear testing
- Test either single-wire or dual-wire wrist straps per ESD TR53
- · Solid State Switch has no moving parts and withstands usage for long life
- Three tests at same time; touch Solid State Switch once to test wrist strap and footwear independently
- 30 volt test provides more accurate measurements
- Split footplate design
- · Independent alarming conditions
- · Relay for door locking systems
- · Programmer (19259) available to quickly change limits or for calibration
- Made in America

Wrist Strap Range: 750 kilohms - 10 megohms Footwear Range: 750 kilohms - 35 megohms

Download Technical Bulletins TB-3034 (Combo Tester) and TB-3045 (Limit Comparator)



19277



ESD PERSONAL GROUNDING TEST STATION Combo Tester X³ Footwear / Wrist Strap Test Step on the footplates (one foot on each footplate). Plug the wrist strap cord into the appropriate jack located on the left side of the unit if the Wrist Strap Test is activated. Press and HDLD the metal toucplate on the unit until the results of the test are displayed. The results for each foot are displayed independent on either side of the touch plate. The results for the wrist strap test are displayed above the touchplate Green lights indicate a pass condition DESCO 0 COMBO TESTER PASS O

19276

Combo Tester

| <u>19250</u> | Combo Tester, 9 Volt Battery | | |
|--------------|---|--|--|
| <u>19252</u> | Combo Tester with Stand | | |
| <u>19253</u> | Combo Tester with Footplate | | |
| <u>98273</u> | Footplate for Combo Tester (includes molded footplate and ground cord) | | |
| <u>98254</u> | Stand, For Use With Combo Tester | | |

- Dual test circuits; versatile, can test footwear or single-wire wrist straps per ESD TR53
- Positive rocker selection switch; reliably changes test mode
- · Red light and audible alarm; indicates that circuit resistance is too high or too low
- · Battery powered with low-battery indicator; provides early warning to replace battery
- Made in America

Wrist Strap Range: 750 kilohms - 10 megohms Footwear Range: 750 kilohms - 100 megohms

Download Technical Bulletin TB-2040





Wrist Strap Testers

Wrist Strap Tester

19240 Wrist Strap Tester, 9 VDC

- Portable small package; supervisor can use to spot check users on shop floor
- · For use with single-wire wrist straps per ESD TR53
- Battery powered 9 volt tester; no adapter needed
- Test results include Fail Low, Pass, and Fail High; if wrist strap fails, the • operator will know if the failure is too high or too low
- Made in America

Range: 750 Kilohms - 10 Megohms

Download Technical Bulletin TB-3017

Touch Tester

19350 Wrist Strap Touch Tester. 9 VDC

- · Connects to equipment ground when plugged in; quick, easy installation and grounding of both wrist straps and table mats
- Tests entire circuit wrist strap, cord and skin contact; reliable resistance test
- · Acts as common point ground for the worksurface; no other ground cords needed
- Test performed during normal use at workstation; improved productivity, workers test without having to leave the workstation
- Made in America

Range: 750 Kilohms - 10 Megohms

Download Technical Bulletin TB-2004

AC Outlet Analyzer and Wrist Strap Tester

98130 AC Outlet Analyzer & Wrist Strap Tester

- Outlet analyzer; verifies proper AC outlet wiring and ground path integrity, enabling effectiveness of grounding products
- Internal audit tool; tests to practical resistance limits
- Convenient, easy to use; tests wrist strap at lab or workstation
- 27 VDC test voltage; minimizes skin resistance effects
- Monitoring and control instruments are outside the scope of RoHS
- Made in America

Download Technical Bulletin TB-2099

Tester Calibration Unit

07010 Calibration Unit

- Passive device; no power source required
- The 07010 can be used with the Desco 19250. 19252, 19253, 19350 and 19240
- Made in America

Wrist strap test range: 750 kilohm-10 megohm Foot ground test range: 750 kilohm-100 megohm Download Technical Bulletin TB-2039



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Phone: (909) 627-8178 · Fax: (909) 627-7449 · Web site: Desco.com

ES



19240







Test & Measurement

19784

DESCO

19640

Analog Surface Resistance Meter

19784 Analog Surface Resistance Test Kit

19786 Analog Surface Resistance Meter, No Electrodes

19785 Two (2) Test Leads

- 50003 Two (2) 5 Pound Weight Electrodes
- Analog compliance verification surface resistance checker; used for determining if a surface is dissipative, conductive or insulative
- · Automatic test range voltage selection per compliance verification ESD TR53; starts tests at 10 volts and automatically switches to 100 volts if the measurement is over 10E5 ohms
- · Portable operation with 9 volt battery; no charging or sourcing of special batteries needed
- · LED illuminates when battery power is low; prevents operator from making bad measurements
- Test kit includes set of five pounds electrodes and leads; use with the meter to measure resistance point-to-point (RTT) and resistance to ground (RTG)

Made in America

Download Technical Bulletin TB-3046

Surface Resistance Checker

| <u>19640</u> | Surface Resistance Checker |
|--------------|-----------------------------------|
| <u>19641</u> | Two (2) Resistance Meter Leads |
| <u>50003</u> | Two (2) 5 Pound Weight Electrodes |

- · Economical compliance verification surface resistance checker; used for determining if a surface is dissipative, conductive, or insulative
- Color coded LEDs; quickly provides exponent range for quick checks of EPA ESD control items
- Automatic test range voltage selection per compliance Verification ESD TR53; starts tests at 10 volts and automatically switches to 100 volts if the measurement is over 10E5 ohms
- · Portable operation with 9 volt battery; no charging or sourcing of special batteries needed
- Made in America

Download Technical Bulletin TB-3037





Ultra Low Voltage Monitor



SmartLog V4 Personnel Grounding Tester



NEW



CE Overhead Ionizer



TESTERS



Test & Measurement

19780

>10¹⁰ ohms/sa

DESCO

TERS

Surface Resistance Test Kit

| <u>19780</u> | Surface Resistance Test Kit |
|--------------|--|
| <u>19781</u> | Surface Resistance Tester, No Electrodes |
| <u>19783</u> | Two (2) Resistance Meter Leads |
| <u>50003</u> | Two (2) 5 Pound Weight Electrodes |

- Accurately measures RTT or RTG for periodic checks, factory audits, or test lab evaluation of product per Compliance Verification ESD TR53
- Versatile tool measures surface resistance as exponent number and illuminates immediately, but designed to measure for full 15 second electrification period and exceeds accuracy requirements of ANSI/ESD S4.1
- Used to test compliance verification per ESD TR-S3, worksurfaces and shelves S4.1, floors S7.1, garments S2.1, seating ESD STM12.1, and flooring/footwear STM97.1
- Meter indicates ambient temperature and relative humidity; available for test records
- Color coded LEDs and digital LCD read-out; easy to read, no interpretation needed; can easily be used for quick go/no go checks
- Automatic Test Range Voltage Selection; in accordance with ESD Association standard, meter will test at 10 volts and automatically switch to 100 volts if over 10E5 ohms
- Power Supply: Two AA alkaline batteries
- Monitoring and control instruments out of the scope of RoHS
- Made in America

Download Technical Bulletin TB-3014



µMEG[™] Pocket Megohmmeter

<u>19635</u> Micromeg Tester

- Small, convenient pocket-size; perfect for fast spot-checking of dissipative and conductive surfaces per Compliance Verification ESD TR53
- Replaceable 9 volt battery; easy operator replacement
- Cable for resistance-to-ground measurements is included; unit is able to measure resistance-to-ground (RTG)
- Surface Resistivity: Range to 10E10 Ohms
- Made in America

Surface-to-Ground Resistance (RTG): Range to 10E9 Ohms

Download Technical Bulletin TB-2083



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Test & Measurement

Digital Static Field Meter

| <u>19492</u> | Digital Static Field Meter | |
|--------------|----------------------------------|--|
| <u>19441</u> | Conductive Plate for Field Meter | |
| <u>19448</u> | Personal HBM Test Fixture | |

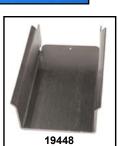
TESTERS

- Portable meter for testing of electrostatic fields; measures surface voltage and polarity on objects up to ±19.99 kV at a distance of 1 inch
- Durable dissipative housing design with membrane switches (NEW); protects meter from physical damage and minimizes wear
- LED range finder; red ranging lights help operator to place the meter at the correct distance from the object being measured
- NIST Calibrated with Certificate
- 19448 allows user to approximate electrical charges generated on the human body while walking or moving
 Made in America

Download Technical Bulletin TB-3040







DIGITAL STATIC FIELD METE



Ionization Test Kit

19493 Complete Ionization Test Kit (Includes 19492 Meter, Plate, Charger and Carrying Case)

- 19440 Portable Test Kit Upgrade for Ionizers (Includes Plate and Charger
- Portable kit for testing of electrostatic fields, and offset voltage and discharge times of air ionizers; measures surface voltage and polarity on objects up to ±19.99 kV at a distance of 1 inch
- Stainless steel conductive plate for static field meter; used to measure offset voltage and discharge times for the periodic verification of ionizers per ANSI/ESD SP3.3 and ESD TR53.
- ±1000 volt charger; apply charge to conductive plate to measure discharge times
- Durable housing design with membrane switches (NEW); protects meter from physical damage and minimizes wear
- LED range finder; red ranging lights help operator to place the meter at the correct distance from the object being measured
- NIST Calibrated with Certificate
- Made in America

Download Technical Bulletin TB-3041

Use Ionization Test Kit on Desco Ionizers







19493

OUTPUT

UNIT



Overhead Ionizers

High Output Overhead Ionizer with Lights and Heater

- 60600 Overhead Ionizer, 40" with Light and Heater, Input 120VAC
 - .
- Overhead mounting with steady state DC ionization; allows unit to be mounted above operator's workstation for coverage of a 2' x 4' area, without interfering with the workstation
- Includes 2 lights with access panels; adds additional light to operator work area for improved visibility; access panel allows for lights to be changed quickly with little down time
- Factory installed fixed temperature heater on all 3 fans; removes chill in air caused by fans for operator comfort and productivity.
- Auto-feedback system automatically maintains offset voltage balance, alarms when maintenance is required
- Made in America

Download Technical Bulletin TB-3006



60600

Changing light in 60600 lonizer

0.

NEW



DESCO

60440

Chargebuster Overhead Ionizer

60473 Overhead Ionizer, 37", 3-Fan, Input 120VAC

60640 Overhead Ionizer, 24", 2-Fan, Input 120VAC, NEW

- Shrouded 3 blade fan design with steady state DC ionization - allows for better coverage (2' x 5'), consistent offset voltage ±10 Volts, and superior discharge times (<3 seconds); tested per ANSI/ ESD STM3.1
- Auto-feedback system
 (audible and visual alarm
 through single tri-color LED);
 unit will automotically abut da
 - unit will automatically shut down and alarm if/when supply voltage drops
- 120/220 VAC input voltage selectable; unit can be used with 110V or 220V power sources
- 3 Position Fan Speed: low, medium, high
- Made in America

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IONIZERS



Bench Top Ionizers

Chargebuster Jr. H/O Ionizer

| <u>60500</u> | Chargebuster Jr Ionizer, 120 Volt | |
|--------------|---|--|
| <u>60501</u> | Chargebuster Jr Ionizer, 120 Volt with Heater | |
| <u>60460</u> | Ionizer Mounting Arm | |
| <u>60480</u> | Replaceable Emitter Cassette (pair) | |
| <u>60499</u> | Emitter Pins, Pack of 20 | |
| <u>60455</u> | Replacement Filter | |

- Patented emitter cassettes* slide out easily for cleaning and replacement; faster and better emitter cleaning can be done away from workstation and away from product
- Grounded metal case; eliminates high voltage fields
- Offset voltage (balance) meets ANSI/ESD S20.20 with fast discharge time tested per ANSI/ESD STM3.1
- Available with heater; removes chill from air
- · Optional articulated mounting arm available
- Made in America

Technical Bulletin<u>TB-2095</u> and<u>TB-2056</u> (Ionizer Mounting Arm)

*US patent #6,137,670

High Output Bench Top Ionizer

| <u>60505</u> | High Output Ionizer, 120 Volt | |
|--------------|------------------------------------|--|
| <u>60508</u> | Alarm Threshold Programmer | |
| <u>60506</u> | Emitter Point Tip Cleaner, Pack of | |
| 60507 | Emitter Points, Pack of 8 | |

 Bench top steady state DC ionizer; specially designed fan modules create better coverage (16" x 36"), consistent offset voltage (balance) ±3V, and superior discharge times (<1 second at 12") tested per ANSI/ESD STM3.1

20

- Sealed plenum air flow ; prevents contamination from being introduced to workstation
- Active balancing system with audible and visual alarm; continually adjusts voltage output for optimal performance and automatically alarms when maintenance is needed or unit is not operating correctly
- 120/220 VAC input voltage selectable; unit can we used with 110V or 220V power sources
- Made in America

Technical Bulletin TB-3043

Bench Top Ionizer

| <u>19500</u> | Bench Top Ionizer, | 120 Volt |
|--------------|--------------------|----------|
|--------------|--------------------|----------|

19520 Bench Top Ionizer, 220 Volt

- Patented* Faraday balance system; automatically maintains a balanced ion output
- Emits ions in a true laminar flow; reduces ion recombination and emitter contamination
- AC ionizing system; superior performance in neutralizing static charges at greater distances
- Offset voltage (balance) meets ANSI/ESD S20.20 with fast discharge times tested per ANSI/ESD STM 3.1
- Fixed temperature heater; removes chill from air
- Made in America

Technical Bulletin TB-2016

*US patent #5,008,594





60500

BENCH TOP IONIZER DESCO WALNUT, CA



НІGH OUTPUT BENCHTOP

60505

DES



Compressed Air Ionizers

Ion Python Hand Gun

- 19588 Controller/Hand Gun w/Hose, 220 Volt
- 60351 Nozzle/Hand Gun Attachment, ESD Protected, Dissipative
- · Point-of-use ionizer using compressed air
- Choice for blowing off charged particles -ElectroStatic Attraction
- Offset voltage (balance) meets ANSI/ESD S20.20 with fast discharge time; tested per ANSI/ESD STM 3.1
- Detachable 7' hose; facilitates servicing
- Adjustable 5 to 100 PSI air pressure
- Made in America

Technical Bulletin TB-2079

Note: Can be adjusted for nitrogen at time of order



19587

ION

PYTHON

Chargebuster Ion Gun

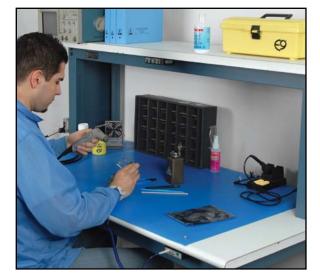
<u>19590</u> Ion Gun, 120 Volt

- 19591 Replacement Filter
- Point-of-use compressed air ionizer neutralize electrostatic charges to eliminate attraction, visual imperfections, and contamination issues by dislodging charged dust and debris
- Fast < 1 second discharge times with ±30 volt offset voltage balance; tested per ANSI/ESD STM3.1
- Modular design with 7 foot ESD protective hose with trigger switch allows operators freedom of motion and minimizes awkward or unsupported positions
- Use filtered air or nitrogen no adjustment required
- Made in America

Technical Bulletin TB-3033











ESD Booklet / DVD

ESD Awareness Booklet

06821 Illustrated Booklet, English, 20 Pages

06822 Illustrated Booklet, Spanish, 20 Pages

- Illustrated booklet; supplement for in-plant ESD training programs
- English or Spanish versions; communicate in worker's language
- Includes two guizzes and section on handling Class 0 ESDS items
 - (06821 only)
- Made in America

Desco's "Total ESD Awareness & Management " Program

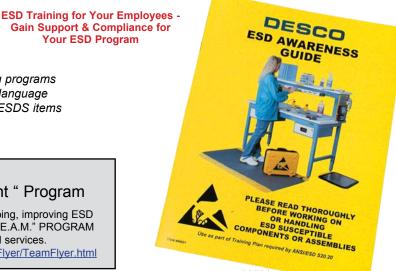
Desco would like to help you create and manage an on-going, improving ESD control program. Let us become part of your team. The "T.E.A.M." PROGRAM makes it easy, with our full array of products and services. For Complete details, visit www.Desco.com/Promos/TeamFlyer/TeamFlyer.html

ESD Awareness DVD

06994 ESD: SEE IT! BELIEVE! - CONTROL IT! DVD

- "See" ESD events as they happen in real time view oscilloscope pictures on DVD; powerful method to convince workers that ESD events easily occur
- Series of experiments demonstrates personal grounding; shows that wrist strap grounding removes charges and eliminates ESD events
- 23 minutes of instructional material featuring Ted Dangelmayer, a past president of the ESD Association; correct and updated information clearly presented by a qualified instructor.
- Material designed for live presentation with audience interaction; consider using as part of ANSI/ESD S20.20 required Training Plan

Download Drawing 06994







06994



Training Plan Required by ANSI/ESD S20.20

Your ESD Program

"Initial and recurrent ESD awareness and prevention training shall be provided to all personnel who handle or otherwise come into contact with any ESDS [ESD sensitive] items. Initial training shall be provided before personnel handle ESDS items. The type and frequency of ESD training for personnel shall be defined in the Training Plan. The Training Plan shall include a requirement for maintaining employee training records and shall document where the records are stored. Training methods and the use of specific techniques are at the Organization's discretion. The training plan shall include the methods used by the Organization to verify trainee comprehension and training adequacy." [ANSI/ ESDS20.20 section 7.2]

Not stock items, but also available are Desco ESD Training CD-Roms: Desco 06999, 06998, 06996 (Spanish).





Binders - Static Dissipative

| <u>07430</u> | Ring Size 0.5", Spine Size 1.2", with Clear Pocket, NEW |
|--------------|---|
| <u>07431</u> | Ring Size 1.0", Spine Size 1.7", with Clear Pocket, NEW |
| <u>07432</u> | Ring Size 1.5", Spine Size 2.3", with Clear Pocket, NEW |
| <u>07433</u> | Ring Size 2.0", Spine Size 2.9", with Clear Pocket, NEW |
| <u>07434</u> | Ring Size 3.0", Spine Size 4.2", with Clear Pocket, NEW |
| <u>07405</u> | Ring Size 0.5", Spine Size 1.2" |
| <u>07410</u> | Ring Size 1.0", Spine Size 1.7" |
| <u>07412</u> | Ring Size 1.5", Spine Size 2.3" |
| <u>07415</u> | Ring Size 2.0", Spine Size 2.9" |
| <u>07420</u> | Ring Size 3.0", Spine Size 4.2" |
| | |

- Low tribocharging, antistatic; minimal charge generation
- Dissipative vinyl material; ideal for storing documents in ESD protected areas - charge will be removed when grounded
- 3-Ring loose leaf format; for standard 8 1/2" x 11" paper
- RTT: <10E11 ohms; meets ANSI/ESD S20.20 and Packaging ANSI/ESD S541 standards
- Items 07430 07434 have static dissipative clear overlay pocket; insert your own covers or documents into the clear pocket for easy viewing
- Items 07430 07434 have 2 interior pockets for additional storage; inside pockets for easy and quick access
- Made in America

Download Drawing 07405



Binders & Document Holders



07431 -Outside Pockets

Document Holders-Static Dissipative

| <u>07450</u> | Sheet Protector, Actual Size 8.75" x 11.25", Sheet Size 8.5" x 11", 3 mil |
|--------------|---|
| <u>07451</u> | Shop Traveler, Actual Size 10" x 12", Sheet Size 8.5" x 11", 3 mil |
| <u>07452</u> | Shop Traveler ‡, Actual Size 10" x 12", Sheet Size 8.5" x 11", 3 mil |
| <u>07454</u> | Shop Traveler, Actual Size 10" x 12", Sheet Size 8.5" x 11", 6 mil |
| <u>07455</u> | Shop Traveler ‡, Actual Size 10" x 12", Sheet Size 8.5" x 11", 6 mil |
| <u>07456</u> | Shop Traveler, Actual Size 11.25" x 17.5", Sheet Size 11" x 17", 6 mil |

- · Low tribocharging, antistatic; minimal charge generation
- · Static dissipative material; charge will be removed when grounded
- Impregnated, not topically treated; ESD properties inside and out
- Sheet Protectors are 3-hole punched; holds documents in 3-ring binders
- Shop Travelers have pockets; production environment router or work order holder
- RTT: <10E11 ohms; meets ANSI/ESD S20.20 and Packaging ANSI/ESD S541 standards
- Made in America
- ‡ Items 07452 and 07455 have 2 pockets.

Download Drawings_07450, 07451, 07454, 07455, 07456



See our products being Made in America on our web site: DescoIndustries.com/Factories 07450



Shop Traveler, Clipboards, Badge Holders

Lead-Free Area Shop Traveler

07473 Shop Traveler, RoHS, 9-1/4" x 11", Pack of 100

- · Lead-free RoHS compliant; appropriate for use in Lead-Free work areas
- RTT: <10E11 ohms; meets ANSI/ESD S20.20 and Packaging ANSI/ ESD S541 standards
- 3 mm thick, 9.25" x 11" with opening; for "A" size documents that are 8-1/2" x 11"
- Integral static dissipative properties
- Made in America

CESSORIES

Download Drawing 07473



07473

Micastat[®] Static Dissipative Clipboards

07601 Clipboard, 9" x 12", Blue

- 07602 Clipboard, 9" x 12", Green
- Static Dissipative, low tribocharging; minimal charge generation, charge removed when grounded
- Static dissipative Micastat[®] laminate clipboard; use to hold documents in ESD protected areas. Ideal for surveys and audits.
- Made in America

Download Drawing 07601



ESD Badge Holder

| <u>07300</u> | Clip-On, Vertical, 2-11/16" x 3-11/16", Pack of 10 |
|--------------|--|
| <u>07301</u> | Clip-On, Horizontal, 3-7/8" x 3-11/16", Pack of 10 |
| <u>07302</u> | Clip-On, Horizontal, 4-1/4" x 2-15/16", Pack of 10 |
| <u>07303</u> | Clip-On, Horizontal, 4-5/16" x 3-3/8", Pack of 10 |
| <u>07304</u> | Clip-On, Proximity, Vertical, 2-11/16" x 4-3/8", Pack of 10 |
| <u>07305</u> | Clip-On, Proximity, Horizontal, 3-15/16" x 3-1/16", Pack of 10 |

- Ideal for use by electronic manufacturers working with ESD sensitive components.
- Highly visible with yellow header and ESD Protective Symbol allowing people to immediately know the badge holder is ESD protective.
- RTT: 10E6 to 10E10 ohms per ANSI/ESD S11.11
- Tribocharging: Less than 100 volts
- · Available in horizontal and vertical, clip or no clip
- Genuine Made In America accept no substitutes

Download Drawing 07300





See our products being Made in America on our web site: DescoIndustries.com/Factories



Posters & Signs

ATTENTION

Posters and Signs

| <u>06742</u> | Area Warning Poster, 17" x 22", 5 per pack |
|--------------|---|
| <u>06740</u> | Area Warning Poster, Spanish, 17" x 22", 5 per pack |
| <u>06741</u> | Foot/Wrist Ground Tester Poster, 17" x 22", 5 per pack |
| <u>06750</u> | Attention Sign, RS-471, English-Spanish, 4" x 10", each |
| <u>06751</u> | Bench Sign, 1" x 6", each |
| <u>06752</u> | Bench Sign, Spanish, 1" x 6", each |
| | |

· Item 06750: Two sided - English on one side, Spanish on the other

ATTENTION **OBSERVE PRECAUTIONS ELECTROSTATIC** SENSITIVE DEVICES

ATENCIÓN

OBSERVE PRECAUCIONES

COMPONENTES Y EQUIPO

SENSIBLES A

ELECTRICIDAD ESTÁTICA

ATTENTION

STATIC SAFEGUARDED WORK AREA

ATENCIÓN AREA PROTEGIDA CONTRA ESTATICA

06750

06751

06752

Made in America

"Caution signs indicating the existence of the Protected Area shall be posted and clearly visible to personnel prior to entry to the Protected Area." (ANSI/ESD S20.20).



2-3 SECONDS A GREEN LIGHT INDICATES A "GOOD" TEST

06741

DISPOSITIVOS **ELECTRONICOS SENSIBLES** A LA DES EN ESTA AREA

06740

LIMITED WARRANTY

We make every effort to see to it that our products are of the highest quality and meet all appropriate recognized industry standards. All statements, technical data, and recommendations contained herein are based upon tests we believe to be reliable. However, the accuracy or completeness thereof is not guaranteed. The proper and correct application of products and data is the responsibility of the user. The following is made in lieu of all warranties, expressed or implied:

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