DESCO

Quality Products For ESD Control























Desco.com





About Desco Industries Inc.

Originally incorporated in 1956, Delta Electrical Specialty Company (DESCO) manufactured and sold a continuity/voltage tester called the Circuitracer. In 1979 the parent company of Desco Industries Inc. (DII) was established. DII now consists of brands including Desco, CMG, Desco Asia, EMIT, Menda, Protektive Pak, Smart Clock, Statquard Flooring, Charleswater, and Vermason. The same basic design used for the original Circuitracer is still manufactured today and is offered through the Menda brand.

DII has expanded its inventory and manufacturing locations to include one in Japan, two UK locations, and seven USA locations. The core product groups manufactured by DII are for ESD control in electronics manufacturing areas. These product groups include bags, wrist straps, worksurface and floor matting, laminates, foot grounders, smocks, gloves, flooring, ionizers, continuous monitors, testers, tape, dispensing bottles, document holders and other workbench accessories. DII also manufactures non-ESD products including chemicals, grounding, personnel identification, material handling, time and attendance, and training products.

DII has grown through the development of new products and the acquisition of companies that fit within our business model. A worldwide network of sales representatives provides local end user support for our products. Customer service groups are available for technical and other inquiries. The sun never sets Desco Industries Inc.

DESCO INDUSTRIES INC. BRANDS

Desco

DESCO

Menda

MENDA

Statguard Flooring



Vermason



EMIT

EMIT

Protektive Pak

PROTEKTIVE PAK

Trustat



Charleswater







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.

Desco's only obligation shall be to replace such quantity of the product proved to be defective. Desco shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection.

No statement or recommendation not contained herein shall have any force or effect unless embodied in a written agreement signed by authorized officers of Desco Industries, Inc.

LIMITED WARRANTY: Desco expressly warrants that for a period of either one (1) year from the date of purchase, products will be free of defects in materials (parts) and workmanship (labor).

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HOW SINGLE-WIRE CONTINUOUS MONITORS WORK: Desco Single-Wire Monitors are used to immediately detect a ground connection failure of a person's standard single-wire wrist strap. These monitors use low voltage, low current AC to monitor the connection. If the resistance or capacitance of the connection is too high or too low, the audible and visual alarms will go off. Single-wire monitors also monitor the resistance circuit of the worksurface ground connection. These monitors are chosen when the user must have full time assurance of the ground connection which cannot be provided with periodic testers.

DESCO Dual Station Continuous Monitor with Satellite Modules

- · Monitors 2 operators and 2 worksurfaces
- · Includes grounding hardware for worksurfaces
- · Park snap feature for each operator
- Additional non-monitored grounding jack on each satellite
- · Made in the United States of America

Technical Bulletin TB-3058

Item	Power Adapter	Power Cord/Plug
19246	100/120 VAC	Japan/N. America
19247	200/220 VAC	N/A







EMIT Full-Time Continuous Monitor

- · Monitors 1 operator, 1 worksurface, and electrical ground
- · Includes grounding hardware for worksurface
- Park snap feature
- Pair with the 50547 Relay Box to control electronic locks, lights and buzzers
- Made in the United States of America

Technical Bulletin TB-6583

Item	Wrist Strap Kit	Voltage	Power Cord/Plug
50543	09070	100/120 VAC	Japan/N. America
50544	09070	200/220 VAC	N/A







DESCO Multi-Mount Continuous Monitor

- Monitors 1 operator and 1 worksurface
- · Includes grounding hardware for worksurface
- Park snap feature
- Worksurface monitoring may be disabled
- · Made in the United States of America

Technical Bulletin TB-3054

Item	Wrist Strap Kit	Power Adapter	Power Cord/Plug
19228	N/A	100/120 VAC	Japan/N. America
19229	09100	100/120 VAC	Japan/N. America
19234	N/A	200/220 VAC	N/A
19236	09100	200/220 VAC	N/A





CONTINUOUS MINI MONITOR

OPERATOR

DESCO Jewel® Workstation Continuous Mini Monitor

- · Single station continuous monitor for operator and ESD worksurface
- · Banana jack creates a more consistent connection
- · Park snap feature
- · Full-time dual status LEDs and audible alarm for operator and workstation monitoring
- Made in the United States of America

Technical Bulletin TB-3050

Item	Power Adapter	Power Cord/Plug
19218	100/120 VAC	Japan/N. America







DUAL-WIRE MONITORS

HOW DUAL-WIRE CONTINUOUS MONITORS WORK: Desco Dual-Wire Monitors use a low DC voltage to monitor the connection of a person's dual-wire wrist strap to ground. The total resistance from the coil cord, wristband and the user's skin and back to the monitor is measured. If this resistance is too high or too low, audible and visual alarms will go off. The monitor also monitors the resistance circuit of the worksurface ground connection. Dual-wire monitors are chosen when the user needs to have full time assurance of the ground connection which cannot be provided with periodic testers. By monitoring the actual resistance, and using a DC voltage, they can be used in even the most sensitive environments such as hard disk drive assembly or semiconductor testing.

EMIT Zero Volt Monitor Solo

- Monitors 1 operator, 1 worksurface, 1 supervisor and 1 metal tool fixture
- Patented Low Voltage Steady-State DC Continuous Loop Monitoring Technology
- Monitors operator's path-to-ground and charge detection > ±2.50 Volts
- · Compatible with SIM Software
- Made in the United States of America

Technical Bulletin TB-6576

Item	Wrist Strap Kit	Power Adapter	Power Cord/Plug
50576	09163	100-240 VAC	Japan/N. America
50577	09163	100-240 VAC	Asia/British

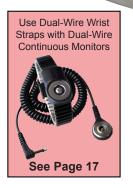


DESCO Mini Zero Volt Monitor

- · Monitors 1 operator, 1 worksurface and 1 metal tool fixture
- Patented Low Voltage Steady-State DC Continuous Loop Monitoring Technology
- Monitors operator's path-to-ground and charge detection > ±2.50 Volts
- Made in the United States of America

Technical Bulletin TB-3053

Item	Power Adapter	Power Cord/Plug
19101	100-240 VAC	Japan/N. America
19102	100-240 VAC	Asia/British



EMIT SIM Software

50152 Software Install for 50 Devices

50153 1 Year Service Agreement

50154 Software Expansion for 50 Devices

- EMIT SIM Software monitors and records the activity of EMIT Smart Products
- · Polls information from both ionizers and monitors
- Records and displays failures to notify supervisors or engineers when a device needs attention
- · Compatible with the following EMIT devices:
 - Bench Top Zero Volt Ionizer
 - Overhead Zero Volt Ionizer
 - Zero Volt Monitor
 - Zero Volt Monitor Solo
 - Dual Programmable Monitor
- · Made in the United States of America

Technical Bulletin TB-6579









EMIT Zero Volt Monitor

- · Monitors 2 operators and 2 worksurfaces
- Patented low voltage steady-state DC continuous loop monitoring technology
- Monitors operator's path-to-ground and charge detection > ±1.25 Volts
- Operator test limit: 1.91 megohms 10 megohms
- Includes grounding hardware for worksurface
- Additional non-monitored grounding jack on each satellite
- Made in the United States of America

Technical Bulletin TB-6515

Item	Wrist Strap Kit	Power Adapter	Power Cord/Plug
50528	19690 (2)	100-240 VAC	Japan/N. America
50538	09163 (2)	100-240 VAC	Japan/N. America







EMIT Dual Operator Programmable Resistive Loop Workstation Monitor

- Monitors 2 operators and 2 worksurfaces
- · Patented low voltage steady state DC continuous loop monitoring technology
- Operator test limit: 1.91 megohms 35 megohms
- · Includes grounding hardware for worksurface
- Additional non-monitored grounding jack on each satellite
- Made in the United States of America

Technical Bulletin TB-6514

Item	Wrist Strap Kit	Power Adapter	Power Cord/Plug
50522	19690 (2)	100-240 VAC	Japan/N. America









Web Site: Desco.com • **Phone:** 909-627-8178

EMIT Limit Comparator

50524 For Dual-Wire Monitors

Verifies the calibration of the 50528/50538 Zero Volt Monitor and 50515/50522 Dual Operator Programmable Monitor

Made in the United States of America

Technical Bulletin

TB-6542







EMIT Overhead Zero Volt Ionizer





61cm x 91cm (2 Fan Ionizers) 61cm x 152cm (3 Fan Ionizers)

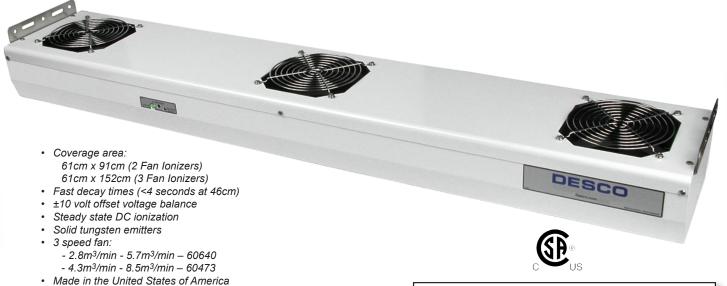
- Fast decay times (<4 seconds at 46cm)
- ±3 volt offset voltage balance
- Steady state DC ionization
- Solid tungsten emitters
- 9 speed fan:
 - 3.7 m³/min 5.7 m³/min (50664 and 50671)
 - 5.5 m³/min 8.5 m³/min (50665 and 50672)
- · Stainless steel housing
- · Compatible with SIM Software
- Made in the United States of America

Technical Bulletin TB-6534

Item	# of Fans	Voltage	Power Cord
50664	2	100/120 VAC	Japan/N. America
50665	3	100/120V AC	Japan/N. America
50671	2	200/220 VAC	N/A
50672	3	200/220 VAC	N/A



DESCO Overhead Chargebuster Ionizer





Item	# of Fans	Voltage	Power Cord
60640	2	100/120 VAC	Japan/N. America
60473	3	100/120 VAC	Japan/N. America







EMIT Bench Top Zero Volt Ionizer

- Coverage area: 40cm x 91cm
- Fast decay times (<2 seconds at 30cm)
- ±3 volt offset voltage balance
- Steady state DC ionization
- Solid tungsten emitters
- 3 speed fan: (1.4m³/min 2.8m³/min)
- Stainless steel housing
- Compatible with SIM Software
- Made in the United States of America

Technical Bulletin TB-6533

Item	Voltage	Power Cord
50663	100/120 VAC	Japan/N. America
50670	200/220 VAC	N/A







DESCO High Output Bench Top Ionizer

- Coverage area: 40cm x 91cm
- Fast decay times (<2 seconds at 30cm)
- ±3 volt offset voltage balance
- Steady state DC ionization
- Solid tungsten emitters
- 3 Speed Fan: (1.4m³/min 2.8m³/min) Made in the United States of America

Technical Bulletin TB-3043

Item	Voltage	Power Cord
60505	100/120 VAC	Japan/N. America
60515	200/220 VAC	N/A





EMIT Mini Zero Volt Ionizer 2

- Coverage area: 15cm x 61cm
- Fast decay times (<3 seconds at 30cm)
- ±5 volt offset voltage balance
- Compact size (134mm high x 89mm wide x 43mm deep with stand)
- Steady state DC ionization
- Solid tungsten emitters
- 2 speed fan: (0.9m³/min or 1.4m³/min)
- Made in the United States of America

Technical Bulletin TB-6590

Item	Power Adapter	Plug
50642	100-240 VAC	N. America/Japan, British, Europe





DESCO Bench Top Ionizer

- Coverage area: 31cm x 122cm
- Fast decay time: <2 seconds at 30cm)
- ±5 volt offset voltage balance
- Auto-balancing AC ionization
- Adjustable speed fan: (3.3m³/min maximum)
- · Made in the United States of America

Technical Bulletin TB-2016

Item	Voltage	Power Cord
19500	100/120 VAC	Japan/N. America
19520	200/220 VAC	N/A







DESCO SPI Fanless Ionizer

- Coverage area: 15cm x 30cm
- Decay time: <15 seconds at 30cm
- ±25 volt offset voltage balance
- Does not have a fan ideal for applications requiring minimal air movement
- · Made in the United States of America

Technical Bulletin TB-5508

Item	Voltage	Power Cord
94000	100/120 VAC	Japan/N. America
94001	200/220 VAC	N/A



EMIT Ion Python Air Nozzle and Hand Gun

Air Nozzle

- Compressed air: 0.2MPa 0.7MPa
- < 1 sec discharge time at 15cm
- ±20 voltage offset (adjustable)
- Foot switch operated
- · Made in the United States of America

Hand Gun

- · Compressed air: 0.2MPa 0.7MPa
- < 1 sec discharge time at 15cm
- ±20 voltage offset (adjustable)
- · 2.1m ESD safe hose with thumb switch
- · Made in the United States of America

Technical Bulletin TB-6530

Item	Style	Voltage	Power Cord
50620	Air Nozzle	100/120 VAC	Japan/N. America
50621	Air Nozzle	200/220 VAC	N/A
50622	Hand Gun	100/120 VAC	Japan/N. America
50623	Hand Gun	200/220 VAC	N/A

Item	Accessory
60351	ESD Safe, Nozzle/Gun Attachment
50626	Ion Python Filter, Pack of 2



EMIT Chargebuster Ion Gun

- Compressed air 0.14 MPa to 0.45 MPa
- <1 sec discharge time at 15cm</p>
- 2.1m ESD protective hose with trigger switch
- Use with filtered air or nitrogen
- Made in the United States of America

Technical Bulletin TB-6559

Item	Voltage	Power Cord
50645	100/120 VAC	Japan/N. America
50644	200/220 VAC	N/A











EMIT Ionization Bar Systems

- Use with laminar flow hood or other controlled environments
- Controller used for air assisted and non-air assisted pulsed ion bar
- Controls the production of positive and negative ions
- Polarity status LEDs

Non- Air Assisted Bar

- Use with laminar flow hood or other controlled environments
- Constructed of ABS plastic and aluminum
- Replaceable bayonet style tungsten emitters

Air Assisted Bar

- Connect to compressed air for air flow (Use with regulator Item# 50953)
- Constructed of ABS plastic and aluminum
- Replaceable bayonet style tungsten emitters

Technical Bulletins TB-6562, TB-6563, and TB-6570



Non Air Assisted	300mm	600mm	900mm	1.2m	1.5m	1.8m	2.5m
	4 Emitters	6 Emitters	8 Emitters	12 Emitters	14 Emitters	18 Emitters	24 Emitters
	50900	50901	50902	50903	50904	50905	50906
Air Assisted	300mm	600mm	900mm	1.2m	1.5m	1.8m	2.5m
	4 Emitters	8 Emitters	12 Emitters	16 Emitters	20 Emitters	24 Emitters	32 Emitters

	Item	Power Adapter	Plug
Pulsed Ion Bar Controller	50855	100-240 VAC	Japan/N. America
Controller	50856	100-240 VAC	British/

EMIT Intelligent Room **Ionization System**

IRIS Room Ionization System effectively neutralizes electrostatic charges in an entire room. Each IRIS Zone is supported by one IRIS Power Supply. The power supply can power and control up to 300 overhead mounted emitters covering approximately 5,200 square feet. Standard ABS components and a modular design allow the emitters to be configured to fit most pre-existing rooms. Each emitter produces bi-polar ionization resulting in stable ion production when in use. Real-time ion sensing and cycle timing allows for uninterruped operation. Standard ABS components and a modular design allow the emitters to be configured to fit most pre-existing rooms. Pair with EMIT TEAM5 IRIS Client Software for continuous automatic ionization balancing of each zone, to keep a running log of all zone activities and to manage calibration.



Included with IRIS is application, engineering and sales consulting provided by EMIT for the IRIS system. Each IRIS is designed to provide a solution for the particular needs of a controlled environment. For more information, please complete IRIS Referral Form by scanning the QR code above.











EMIT SmartLog V5[™] ACCESS CONTROL/DATA ACQUISITION

Smartlog V5™

- · Simultaneously tests the wrist strap and both ESD footwear within 2 seconds
- · Helps control access to ESD Protected Areas
- Test results are electronically stored in the SmartLog V5™ and easily downloaded to a PC for logging records and evaluation
- Enforces test requirements specific to the operator via keypad, barcode or optional proximity badge input
- · Ethernet network compatible
- · Made in the United States of America

Item	Power Adapter	Plug
50766	100-240 VAC	Japan/N. America
50767	100-240 VAC	Asia/British

SmartLog V5™ with Turnstile

 Activates after the operator's wrist strap and/or footwear is determined to act as a path-to-ground

Item	Voltage
50772	200/220 VAC
50773	100/120 VAC

Technical Bulletins TB-6584 and TB-6585

Item	Accessory
50764	HID ProxPoint Plus Reader
50765	HID iClass Reader
50415	Stand
50755	ESD Glove Test Fixture



ESD Glove Test Fixture



3:52:05 PM







Turnstile

Wall Mount

EMIT TEAM5 Software

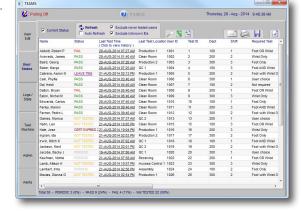
TEAM5 is the most powerful and accurate ESD Test Acquisition Software on the market. When used with the EMIT SmartLog V5™, TEAM5 allows manufacturers and assemblers to automate the collection of employee ESD testing. It has a set of robust employee management functions that allow automated tracking of employee leave time, shift and department assignments and ESD training. TEAM5 connects your ESD test data to the rest of your manufacturing environment with automated electronic data interchange in a variety of formats.

TEAM5 Software is required for every SmartLog V5™ system installation.

Additional features found in TEAM5 Enterprise:

- Multiple administrator Windows client for managing employee and test data via a shared network drive
- · Automated synchronization with third party personnel databases

Item	Туре	Service
50491	Enterprise	1 Year
50493	Standard	1 Year









DESCO Combo Tester X3

- Tests operator's path-to-ground
- Default test limits
 - Wrist Strap: 750 kilohms to 10 megohms
 - Footwear: 750 kilohms to 35 megohms
- Simultaneously tests the wrist strap and both ESD footwear within 2 seconds
- Solid-state test switch with no moving parts
- Compatible with 50755 ESD Glove Test Fixture
- Includes relay terminal for activating electronic locks, lights and buzzers
- Made in the United States of America

Technical Bulletins **TB-3066** (Tester) and **TB-6581** (Limit Comparator)

Item	Stand	Power Adapter	Plug
19278	Not Included	100-240 VAC	N. America/Japan, British, Europe
19279	Included	100-240 VAC	N. America/Japan, British, Europe

Item	Accessory
19255	Stand
50424	Limit Comparator
50755	ESD Glove Test Fixture



EMIT Dual Independent Footwear and Wrist Strap Tester

- Tests operator's path-to-ground
- Default test limits
 - Wrist Strap: 1 megohm to 10 megohms (50407)
 - Wrist Strap: 1 megohm to 35 megohms (50562)
 - Footwear: 1 megohm to 35 megohms
- Simultaneously tests the wrist strap and both ESD footwear within 3 seconds
- Includes relay terminal for activating electronic locks, lights and buzzers
- Made in the United States of America

Technical Bulletins TB-6502 (Tester) and TB-6581 (Limit Comparator)

Item	Power Adapter	Plug
50407	100-240 VAC	Japan/N. America
50562	100-240 VAC	Asia/British

Item	Accessory
50406	Replacement Foot Plate
50424	Limit Comparator

DESCO Combo Tester

- Tests operator's path-to-ground
- Default test limits
 - Wrist Strap: 750 kilohms to 10 megohms
 - Footwear: 750 kilohms to 100 megohms
- · Use the rocker switch to select a wrist strap or footwear test
- 9 Volt battery operated for portability
- · Made in the United States of America

Technical Bulletins TB-3069 (Tester) and TB-2039 (Calibration Unit)

Item	Foot Plate	Stand
19280	Not Included	Not Included
19282	Included	Included
19283	Included	Not Included

Item	Accessory
98254	Stand and Foot Plate
98273	Stainless Steel Foot Plate
07010	Calibration Unit



EMIT

ESD PERSONAL GROUNDING TEST STATION

Dual Foot Plate



Stand & Foot Plate



Foot Plate





DESCO Digital Static Field Meter and Ionization Test Kit

- Portable meter for measuring electrostatic fields; an effective problem solving tool that may be used to identify items that can be charged
- · Optical distance indicator ensures accuracy and repeatability
- · HOLD button allows the measurements to be retained for easy reading
- Use for compliance verification of ionizers per ANSI/ESD SP3.3 and ESD TR53
- 19441 Charging Plate allows the user to measure ionizer balance
- 19440 Test Kit Upgrade includes a charging plate and charging unit (19492 Digital Static Field Meter required)
- · Made in the United States of America

Technical Bulletin TB-3040 (Digital Static Field Meter) and

Technical Bulletin TB-3041 (Ionization Test Kit)

Item	Туре
19492	Digital Static Field Meter
19493	Ionization Test Kit

Item	Accessory
19440	Portable Test Kit Upgrade
19441	Charging Plate



DESCO ESD Survey Kit

- Use to measure, verify and qualify products for use in the ESD Protected Area in accordance with ESD Association documents: ESD TR53, ANSI/ESD S4.1, ANSI/ESD S7.1, ANSI/ESD STM97.1 and other documents
- Contents:
 - (1) Digital Surface Resistance Meter Kit
 - (1) AC Outlet and Wrist Strap Tester
 - (1) Low Resistance Tester
 - (1) Ionization Test Kit
 - (1) Human Body Model Test Fixture
 - (1) Training Paddle Set
 - (1) Rugged Case with Wheels, Retractable Handle, and Custom Foam Insert
- · Made in the United States of America

Technical Bulletin TB-3064

Item	Voltage	Plug
50568	100/120VAC	Japan/N. America
50569	200/220VAC	Asia/British









DESCO Surface Resistance Meter Kit

- Measures resistance point-to-point (Rtt) or surface to ground (Rtg) of worksurfaces. flooring systems, garments, packaging, and other materials
- Meets testing requirements of ESD Association Standards: ESD TR53, ANSI/ESD S4.1, ANSI/ESD S7.1, ANSI/ESD STM97.1 and other standards
- Resistance values are expressed with a digital mantissa and LED exponent
- Measures resistance range greater than 1.0 x 10³ ohms to less than 1.0 x 10¹² (±10% accuracy)
- Automatic test voltages (10V and 100V ±5%)
- Quick check button bypasses the 15 second electrification period to allow quick spot checks
- 2 AA battery operated for portability
- Made in the United States of America

Technical Bulletin TB-3062

Item	Туре
19787	Meter with Test Kit
19788	Meter Only

Item	Accessory
50003	Two 5 Pound Electrodes
50005	Concentric Ring Probe







Meter with Test Kit









- · Analog compliance verification surface resistance checker
- Automatic test range voltage selection per compliance verification ESD TR53
- 9 Volt battery operated for portability
- Measures resistance range greater than 1.0 x 10³ ohms to less than 1.0 x 10¹² (±10% accuracy)
- · LED illuminates when battery power is low
- Made in the United States of America

Technical Bulletin TB-3046

Item	Туре
19784	Meter with Test Kit
19786	Meter Only



Meter with Test Kit

DESCO AC Outlet Analyzer and Wrist Strap Tester

- Verifies proper AC outlet wiring, provides a grounding point, and tests path-to-ground integrity of an operator's wrist strap
- Wrist strap test limits: 750 kilohms to 35 megohms
- Made in the United States of America

Technical Bulletin TB-2099

Item	Voltage	Plug
98132	100/120 VAC	Japan/N. America
98131	200/220VAC	Asia/British



Japan/N. America



Asia/British



DESCO Surface Resistance Checker

19640 Surface Resistance Checker

- · Economical compliance verification surface resistance checker
- Used for determining if a surface is dissipative, conductive, or insulative









DESCO MagSnap 360[™] Dual-Wire Metal Expansion Wrist Straps

- 360° rotation between wristband and coil cord; designed to promote comfort, freedom of motion, and reduce strain on the operator's wrist
- Magnetic connection between wristband and coil cord; creates a superior electrical connection to eliminate intermittent failures in traditional snap connections using springs
- Dual-wire metal expansion wristband and coil cord can be used with any brand's dual-wire continuous monitor including EMIT, Credence, Novx, and 3M
- Medical grade series stainless steel backplate and links; creates a more reliable path-to-ground for the operator and is ideal for use with low voltage style monitors.
- · Made in the United States of America

Drawings 19886 and 19880

Technical Bulletin TB-2005

Wrist Straps

Item	Size	Coil Cord
19889	Small	1.8m, Right Angle
19890	Medium	1.8m, Right Angle
19891	Large	1.8m, Right Angle
19892	Small	3.6m, Right Angle
19893	Medium	3.6m, Right Angle
19894	Large	3.6m, Right Angle
19886	Small	Wristband Only
19887	Medium	Wristband Only
19888	Large	Wristband Only

MagSnap 360™ Coil Cords

Item	Length	Plug
19880	1.8m	Angle
19881	3.6m	Angle
19882	6m	Angle





Magnetic Connection Between Wristband and Coil Cord

Prevent Accidental Disconnects





Medical Grade Series Stainless Steel Backplate and Links





DESCO Wrist Straps with Snap-One Coil Cords

- 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 monitor; continuously verifies the operator's proper resistance to ground
- · Irreversibly bound silver fibers provide both antimicrobial and anti-odor performance
- · Fixed metal sized bands available in three sizes; easy to use
- · Greater than 200,000 flex cycles
- Made in the United States America

Drawings 19690, 19859, and 19695

Snap-One Elastic Wrist Straps

Item	Coil Cord	
19690	1.8m, Angle	
19851	3.6m, Angle	

Snap-One Metal Wrist Straps

Item	Size	Coil Cord
19859	Small	1.8m, Angle
19858	Medium	1.8m, Angle
19857	Large	1.8m, Angle

Snap-One Coil Cords

Item	Length	Plug
19695	1.8m	Angle
19696	3.6m	Angle
19866	5.5m	Angle

Jewel® Elastic Wristbands

Item	Coil Cord
19691	Wristband Only

Jewel® Metal Wristbands

Item	Size	Coil Cord
19844	Small	Wristband Only
19842	Medium	Wristband Only
19840	Large	Wristband Only



TRUSTAT® Metal Single-Wire Wrist Straps

- · Adjusts from 155 mm to 280 mm with five link extenders
- Meets ANSI/ESD S1.1 one to five pound breakaway force requirement
- Made from low sloughing materials with reduced particulates - suitable for being cleaned and packaged for use in clean manufacturing environments

Drawing **04534**

Item	Coil Cord	
04548	1.8m, Straight	
04549	3.6m, Straight	





Adjusting clips onto wristband



Cord snapped to Wristband





DESCO Jewel® MagSnap Adjustable Elastic and Metal Wrist Straps

- Patented (U.S. Patent 5,004,425) magnetic connection between wristband and coil cord
- Superior electrical connection eliminates intermittent failures of traditional snaps and extends the lifespan of the wrist strap
- Includes 4mm steel capped parking station adapter which allows the use of new MagSnap interconnect system with single wire monitors
- · Made in the United States of America

Drawings 09180, 09183, and 09186

Technical Bulletin TB-2005

Elastic Wrist Straps

Item	Coil Cord	
09184	1.8m, Straight	
09185	3.6m, Straight	
09202	1.8m, Angle	
09203	3.6m, Angle	
09183	Wristband Only	

Metal Wrist Straps

Item	Color	Coil Cord
09187	Black	1.8m, Straight
09188	Black	3.6m, Straight
09198	Sapphire	1.8m, Straight
09199	Sapphire	3.6m, Straight
09186	Black	Wristband Only
09197	Sapphire	Wristband Only

Jewel® MagSnap Coil Cords

Item	Length	Plug
09180	1.8m	Straight
09181	3.6m	Straight
09182	6m	Straight
09206	1.8m	Angle
09207	3.6m	Angle







Revolutionary Magnetic Interconnect Technology



Right Angle Banana Plug





Use Single-Wire Wrist Straps with Single-Wire Monitors

DESCO Jewel® Elastic Adjustable Wrist Straps

- Patented (US Patent 5,951,337) contoured spring supported banana plug ensures reliable path-to-ground connection
- · Solid stainless steel wristband stud machined to exacting tolerances and precise profile
- Irreversibly bound silver fibers provide both antimicrobial and anti-odor performance
- Replaceable elastic strip (item 09140)
- Made in the United States of America

Drawings 09105, 09120, and 09150 Technical Bulletin TB-2005

Wrist Straps

Item	Coil Cord	
09100	1.8m, Straight	
09130	3m, Straight	
09105	Wristband Only	
09140	Replaceable Band	

Jewel® Rapid Retraction Coil Cords

Item	Length	Plug
09120	1.8m	Straight
09121	3m	Straight
09150	1.8m	Angle
09151	3m	Angle







DESCO Metal Expansion Wrist Straps

- Metal expansion wrist strap provides superior contact with skin for reliable removal of generated static charges
- · Comfortable, designed not to pinch or pull
- · Durable metal band; metal grade stainless steel
- · Made in the United States of America

Drawings 09041, 09043, 09480, and 91095

Technical Bulletin TB-2005

Wrist Straps

Item	Size	Coil Cord
09088	Small	1.8m, Straight
09087	Medium	1.8m, Straight
09086	Large	1.8m, Straight
09085	Adjustable	1.8m, Straight
91070	Adjustable	1.8m, Angle
09045	Small	Wristband Only
09044	Medium	Wristband Only
09043	Large	Wristband Only
09041	Adjustable	Wristband Only
09042	Adjustable XL	Wristband Only





Relaxed Retraction Coil Cords

Item	Length	Plug
09480	1.8m	Straight
09680	3.6m	Straight
09682	6m	Straight
91095	1.8m	Angle



Straight Banana Plug



Right Angle Banana Plug

DESCO Elastic Adjustable Wrist Straps

- Soft elastic band for increased wearer comfort
- · Irreversibly bound silver fibers provide both antimicrobial and anti-odor performance

Web Site: Desco.com • Phone: 909-627-8178

- Replaceable elastic strip (item 09029)
- Made in the United States of America

Drawings 09025, 09028, 09480, and 91095

Technical Bulletin TB-2005

Item	Size	Coil Cord
09069	Adjustable	3.6m, Straight
09070	Adjustable	1.8m, Straight
09028	Adjustable	Wristband Only
09025	Small	Wristband Only
09026	Medium	Wristband Only
09027	Large	Wristband Only
09029	N/A	Replaceable Band







DESCO Hook and Loop Foot Grounders

- Non-marring interior; will not mark shoes
- Tear resistant dual layer rubber with inner scrim; provides long life
- Green foot grounder can be used in lead-free areas where RoHS compliant items are exclusively worked on
- Made in the United States of America

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

Item	Type	Color	Resistor
17200	Heel	Blue	1 Megohm
17202	Heel	Blue	2 Megohm
17260	Heel	Green	2 Megohm
17222	Toe	Black	1 Megohm





DESCO 3-Layer Non-Marring Heel Grounders

- Non-marring interior and exterior dissipative rubber; will not mark shoes or floors
- Hook and loop fastening assembly; genuine Velcro® material adjustable
- Reversible static dissipative 3-layer rubber; extended life expectancy; exceptional wear resistance, able to use all four wearing surfaces
- Made in the United States of America

Technical Bulletin TB-2020 and Drawing 17250

Item	Resistor
17250	None
17252	1 Megohm

All Desco Foot Grounders are RoHS compliant



DESCO Premium Full Coverage Foot Grounders

- 2 megohm resistor ensuring a minimum of 1 megohm ground resistance
- 3 point hook and loop fastening system
- Improved design ensures maximum contact area, for superior grounding effectiveness
- · Made in the United States of America

Drawing **17290**

Item	Size
17290	Small
17291	Medium
17292	Large

DESCO Disposable Heel Grounder

- Designed for single use for quests
- Self-adhesive section for reliable adhering to underside of heel

Drawing 17155

Item	Pair/Box
17155	100

TRUSTAT® Disposable Conductive Footwear

- Conductive tab connects operator with ESD flooring
- Material will not scratch or mark flooring

Drawing **04584**

Item	Pair/Box
04584	150
880012	50









DESCO Statshield® Blue Jacket with Knitted Cuffs

- Groundable static control garment system tested per ANSI/ESD S20.20-2007 (Rtg < 3.5 x 10⁷) requirements
- Minimum of 9% carbon conductive nylon fibers woven in chain-link design
- Creates faraday cage effect around torso and arms of operator
- · Conductive knitted cuff with Hip-to-Cuff grounding
- Badge holder tab secures badge holders to avoid damage to other parts of the smock
- · Two pen pockets on sleeve
- Made in the United States America

Technical Bulletin TB-2055

Item	Size
73749	X-Small
73750	Small
73755	Medium
73760	Large
73765	X-Large
73770	2X-Large
73771	3X-Large
73772	4X-Large
73773	5X-Large
73774	6X-Large







Badge Holder Tab



DESCO Statshield® Blue Jacket with Snaps

- Groundable static control garment system tested per ANSI/ESD S20.20-2007 (Rtg < 3.5 x 10⁷) requirements
- Minimum of 9% carbon conductive nylon fibers woven in chain-link design
- · Creates faraday cage effect around torso and arms of operator
- Adjustable snap closure on cuff of smock
- Hip-to-Cuff grounding
- · Made in the United States America

Technical Bulletin TB-2055

Item	Size		
73699	X-Small		
73700	Small		
73710	Medium		
73720	Large		
73730	X-Large		
73740	2X-Large		
73741	3X-Large		
73742	4X-Large		
73743	5X-Large		
73744	6X-Large		













Statguard® Dissipative Floor Finish

- Low-tribocharging; limits charge generation when walking <100 volts, meets ANSI/ESD S20.20
- Static dissipative; with ESD footwear, removes the charge off personnel
- Converts a non-ESD floor to an ESD floor
- Can be applied on many hard surfaces or sealed floors including vinyl, VCT, linoleum, rubber, epoxy, acrylic paint, and concrete
- Rtt (1 x 10^7 to < 1 x 10^{10} ohms) Coating ANSI/ESD S7.1 and ESD TR53
- Coverage per Coat: Approx 50 m²/liter (3 coat initial application recommended)
- Made in the United States of America

Technical Bulletin TB-7042

Item	Size/Container
10511	10 liters Cube Bag-in-Box
10512 20 liters Cube Bag-in-Box	
10520	208 liters Drum

Item Accessory Si		Size	Amount
10500	Floor Label	203mm Diameter	10 Pack



Statguard® Low-VOC Dissipative Floor Finish

- Used to convert hard non-ESD floors to ESD protective flooring and for use in protecting and enhancing ESD permanent flooring (vinyl, VCT, rubber)
- Low-VOC; meets CARB and other regional VOC requirements
- Low tribocharging (<100 volts) coating ANSI/STM 97.2
- 23% solids 2 coat system reduces labor needed for initial install and on-going maintenance of the floor
- Rtt (1 x 10^7 to < 1 x 10^{10} ohms) Coating ANSI/ESD S7.1 and ESD TR53
- Coverage per Coat: Approx 50 m²/liter (2 coat initial application recommended)
- Made in the United States of America

Technical Bulletin TB-7055

Item	Size/Container	
10550	10 liters Cube Bag-in-Box	



Statguard® Conductive Acrylic Paint

- Rtt: 1×10^4 to $< 1 \times 10^7$ ohms per ANSI/ESD S7.1; conductive able to remove electrostatic charges to ground
- Can replace ESD floor mats in electronics, manufacturing, assembly, and test areas protecting ESD susceptible items
- Adheres to floors, walls, or wood furniture; provides ESD protective surface on concrete and epoxy floors and in places which are difficult to protect
- Coverage: Approx 7-10 m²/liter depending on surface
- Made in the United States of America

Technical Bulletin TB-7001

Item	Size/Container	Color	
10408	3.8 liters Pail	Dark Grey	
10409	19 liters Pail	Dark Grey	
10410	19 liters Pail	Light Grey	









Statguard® Conductive Epoxy

- Conductive (Rtt and Rtg 1 x 10⁴ to < 1 x 10⁷ ohms per ANSI/ESD S7.1 or IEC 61340-4-1
- Provides a flooring surface that does not generate a static charge and will
 act as part of the path-to-ground for an operator wearing ESD footwear.
- One coat, 2-part, water-based epoxy system
- 50% solids by volume
- Coverage: Approx 5 m²/liter
- · Made in the United States of America

Technical Bulletin TB-7001

Item	Size/Container	Color
10400	15 liter kit	Grey



Reztore® Antistatic Surface and Mat Cleaner

- · Static dissipative solution; cleans and restores ESD mats
- Does not contain silicone; cleaners with silicone leave an insulative layer preventing conductive or dissipative mats from functioning properly
- · Made in the United States of America

Technical Bulletin TB-7000 and TB-7020

Item	Size/Container	
10435	0.95 liter Spray Bottle	
10438	10 liter Bag-in-Box	
10600	160 Wipes Pop-Up Dispenser	



10 liter Box Refilling Bottle

ROZIOTO. ESD SUPFAGES Made Gleamer Allen bonspative Allen bon insulative film Allen to insulative film Allen to insulative film All and demands supface REAN GOME COMPATIBLE CALL CALL

Reztore® Topical Antistat

- Antistatic; keeps triboelectric charges well below 200 volts per EIA 625
- Long lasting hard coat formula; protection that lasts three times as long as the other leading brands
- Non-toxic
- Removes contaminating particulate; eliminates possible ESD event
- Rtt: < 1 x 10⁹ ohms per ANSI/ESD S4.1
- Made in the United States of America

Technical Bulletin TB-7005

Item	em Size/Container			
10415	0.95 liter Spray Bottle			
10418	10 liter Bag-in-Box			









All worksurface mat sizes have been converted from English dimensions and are within ± 2% of the stated size and usually larger.

Statfree T2[™] Dissipative Dual Layer Rubber

• Dual layer high strength nitrile rubber compound

 Meets ANSI/ESD S20.20 worksurface required limit and recommendation of ANSI/ESD S4.1 for contact with ESD susceptible items

 Dedicated conductive layer reduces the resistance to ground (Rtg) from the top layer to the ground point and allows the mats to be used with ESD workstation monitors

 Ultraviolet (UV) additives stabilize color retention, ensure ESD performance over time and eliminate surface layer deterioration

Made in the United States of America

Rtt and Rtg (Top side):

1 x 10^6 to < 1 x 10^9 ohms per ANSI/ESD S4.1 **Rtt (Back side):**

< 1 x 10⁶ ohms per ANSI/ESD S4.1

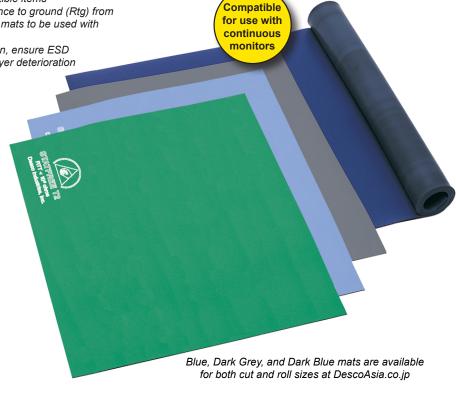
Technical Bulletin TB-2000 and

Drawings PM-104 and PM-122

Mat Top Kits

Size (W x L)	Green
600mm x 900mm	880003
600mm x 1200mm	880004
750mm x 900mm	880005
750mm x 1200mm	880006
750mm x 1500mm	880007
750mm x 1800mm	880008
900mm x 1200mm	880009
900mm x 1500mm	880010
900mm x 1800mm	880011

Rolls available at DescoAsia.co.jp



Statfree B2™ Dissipative Dual Layer Vinyl

· Heat fused thermoplastic dual layer vinyl

Meets ANSI/ESD S20.20 worksurface required limit and recommendation of ANSI/ESD S4.1 for contact with ESD susceptible items

 Dedicated conductive layer reduces the resistance to ground (Rtg) from the top layer to the ground point and allows the mats to be used with ESD workstation monitors

· Made in the United States of America

Rtt and Rtg (Top side):

 $1 \times 10^6 \text{ to } < 1 \times 10^9 \text{ ohms per ANSI/ESD S4.1}$

Rtt (Back side):

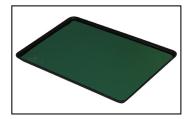
< 1 x 10⁶ ohms per ANSI/ESD S4.1

Technical Bulletin TB-2000 and Drawing PM-127

Mat Top Kits

Size (W x L)	Dark Blue	Green
600mm x 900mm	66164	66174
600mm x 1200mm	66166	66175
750mm x 1500mm	66167	66176
750mm x 1800mm	66168	66177
900mm x 1800mm	66169	

Rolls available at DescoAsia.co.jp



Custom Cut Sizes for Trays Available



Compatible

for use with continuous

monitors

Included with Mat Top Kits







All worksurface mat sizes have been converted from English dimensions and are within ± 2% of the stated size and usually larger.

Statfree UC™ Dissipative Dual Layer Ultra Clean Rubber

• Dual layer high strength nitrile rubber compound

 Meets ANSI/ESD S20.20 worksurface required limit and recommendation of ANSI/ESD S4.1 for contact with ESD susceptible items

 Dedicated conductive layer reduces the resistance to ground (Rtg) from the top layer to the ground point and allows the mats to be used with ESD workstation monitors

• No detectable levels of Silicone or DOP. Approved* for used in Class 100 cleanrooms

· Made in the United States of America

Rtt and Rtg (Top side): 1×10^6 to $< 1 \times 10^9$ ohms per ANSI/ESD S4.1

Rtt (Back side): < 1 x 10⁶ ohms per ANSI/ESD S4.1

Technical Bulletin TB-2000 and Drawing PM-121

Mat Roll

Size (W x L)	Blue
762mm x 12.2m	66300

*Although cleanroom requirements vary, Statfree UC™ material will most likely meet the requirements for a class 100 or higher cleanroom

Micastat® Dissipative Laminate

- · Hard, rigid laminate; designed for new or replacement ESD workbench tops
- High pressure laminate; resistant to hot solder and most solvents; static control properties will
 continue for the lifetime of the material
- Low tribocharging; meets ESD worksurface requirement of ANSI/ESD S20.20
- · Easy to cut; configure to fit your requirements
- · Made in the United States of America

Rtt and Rtg: $>1 \times 10^6$ to $<1 \times 10^9$ per ANSI/ESD S4.1 and ESD TR53

Technical Bulletin TB-2091 and Drawings 10393 and 10200

Laminate Sheets

Size (W x L)	Beige	Blue	Grey	White
762mm x 3.05m	10200	10180	10290	10240
762mm x 3.66m	10202	10181	10291	10242
914mm x 2.44m	10203	10182	10292	
914mm x 3.05m	10204	10183	10293	10244
914mm x 3.66m	10206	10184	10294	10246
1219mm x 2.44m	10208	10185	10295	10248
1219mm x 3.66m	10212	10187	10297	10252
1524mm x 3.66m	10215	10190	10300	10255

Mat Top Kits

Size (W x L)	Beige	Blue	Grey
600mm x 900mm	10310	10344	10342
600mm x 1.2m	10350	10384	10382

Mat top kits feature 38mm radius corners, 10mm snap, and peel and stick installation tape.

Gyro-Stat® Bench Top Turntable

- Allows operator to rotate (bidirectional) heavy, large, awkward assemblies on a bench top without manual handling of the product
- Stainless steel construction with Statfree T2™ mat top
- 3 thumbscrew locks turntable to temporarily prevent spinning when required
- Gyro-Stat® turntable is Made in England; Statfree T2[™] mat top kit is made in the United States of America

Rtt and Rtg: 1×10^6 to $< 1 \times 10^9$ ohms per ANSI/ESD S4.1

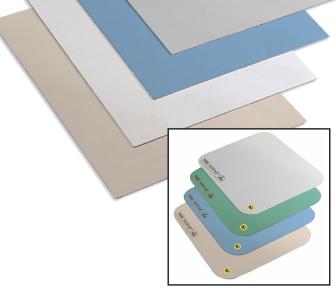
Technical Bulletin TB-3067

Size (Diameter)	Blue
476mm	07604



Surface

Resistance











Statfree CV280™ Conductive Vinyl

- Conductive polymer matrix of PVC floor matting
- Lays flat; edges will not curl
- Designed for use in high traffic areas and good for use under chairs and carts
- Works with ESD floor tiles and ESD floor finishes
- Mat kits include grounding kit and 4 oz. of Reztore™ Floor Mat Cleaner
- · Made in the United States of America

Rtt and Rtg: $< 1 \times 10^6$ ohms per ANSI/ESD 7.1

Technical Bulletin TB-2000 and Drawing PM-130

Mat Kits

Size (W x L)	Black
900mm x 1200mm	15013
1200mm x 1800mm	15014

Mat Rolls

Size (W x L)	Black
1.2m x 12.2m	15011
1.2m x 18.3m	15012



Recommended for use with chairs

Statfree G2™ Conductive Smooth Rubber

- Conductive homogeneous rubber floor mat material
- Use in high traffic areas over ESD floor tiles and ESD floor finishe
- · Made in the United States of America

Rtt and Rtg: < 1 x 10⁶ ohms per ANSI/ESD S7.1

Technical Bulletin TB-2000 and Drawing PM-106

Mat Roll

Size (W x L)	Black
1.2m x 12.2m	82068





DESCO Mat Grounding Cords and Hardware

09813	Floor Mat Ground Cord, 10mm Stud, w/Resistor, 4.6m
09814	Floor Mat Ground Cord, 10mm Stud, No Resistor, 4.6m
09817	Mat Ground Cord, 10mm Socket, No Resistor, 3m
09818	Mat Ground Cord, 10mm Socket, w/Resistor, 3m
14234	Floor Mat Ground Cord Kit (09813 + Snap Kit)

- Low profile of 09813 / 09814 / 14234 reduces inadvertent snagging or tripping that may disconnect ground cord
- Ground cord terminated with ring terminal; allows easy attachment to electrical ground
- Made in the United States of America

Technical Bulletin TB-2007 and Drawings 09814 and 09817





Mat Ground Cord







Statfree S Plus™ Dissipative Anti-Fatigue Floor Mat

· Cross-link vinyl/nitrile rubber floor mat material

· Anti-fatigue material reduces strain on feet, ankles, and lower back

Made in the United States of America

Rtt and Rtg: < 1 x 10⁹ ohms ohms per ANSI/ESD S7.1

Technical Bulletin TB-2000 and Drawing PM-120

Mat Roll

Size (W x L)	Grey
9.1m x 18.3m	82066





Statfree DPL Plus™ Diamond Plate

- · Homogeneous vinyl with diamond plated surface pattern
- · Laminated foam rubber anti-fatigue base
- · Highly visible yellow border with beveled edges and radius corners
- Made in the United States of America

Rtt and Rtg: 1×10^3 to $< 1 \times 10^6$ ohms ohms per ANSI/ESD S7.1

Technical Bulletin TB-2000

and Drawings PM-125 and PM-126

Mat Kits

Size (W x L x Th)	Black
610mm x 914mm x 11.4mm	40979
914mm x 1219mm x 11.4mm	40980
914mm x 1524mm x 11.4mm	40981

Mat Roll

Size (W x L x Th)	Black
914mm x 18.3m x 11.4mm	40982



Statfree i[™] Conductive Ergonomic Rubber Floor Mat

- Nitrile butadiene homogenous rubber with no clay or silica fillers
- Suspended bounce feel, and matrix of "tri-radial" supports firming up as weight is applied improves worker comfort and productivity
- Interlocking edges allow for mats to be fit together as floor runners
- Suitable for use in critical environments; used in Class 1000 cleanrooms
- · Made in the United States of America

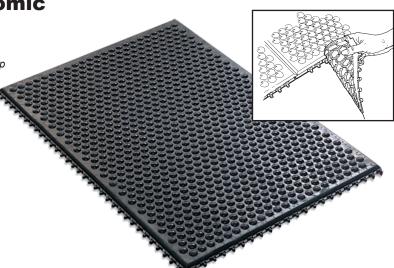
Rtt and Rtg: 1×10^3 to $< 1 \times 10^6$ ohms ohms per ANSI/ESD S7.1

Technical Bulletin TB-2000 and Drawing PM-107

Mat Kits

Size (W x L)	Black
610mm x 914mm	40930
610mm x 1219mm	40931

Grounding hardware not included.





Statshield® Metal-In ESD Shielding Bags

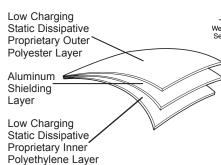
- Metal-In film laminate 0.076mm thick (3 mil)
- Exceeds shielding limit <50 nJ per ANSI/ESD S541 tested per ANSI/ESD S11.31
- 40% light transmission allows for easy identification of bag contents
- Integral antistatic, low tribocharging properties; bag contents will not electrostatically charge during movement
- Sold 100 per pack
- Made in the United States of America

Drawings 13405 and 13605

Size W x L (mm)	Without Zipper	With Zipper
51 x 76	13401	13601
76 x 127	13405	13605
127 x 203	13430	13630
127 x 254	13435	13635
152 x 203	13440	13640
152 x 762	13450	13650
178 x 381	13457	13651
203 x 305	13465	13665
254 x 305	13470	13670
356 x 457	13510	13710
457 x 610	13524	13725
508 x 610	13528	13726









Without Zipper

Additional sizes of Metal-In and **Metal-Out Bags** available at Desco.com

Low Charging Zipper

Statshield® Metal-Out ESD Shielding Bags

- Metal-Out film laminate 0.076mm thick (3 mil)
- 40% light transmission allows for identification of bag contents
- Integral antistatic, low tribocharging properties; bag contents will not electrostatically charge during movement
- Manufactured on specially designed soft fold converting machines; prevents scratches and creases maintaining the integrity of Faraday Cage shielding protection
- Sold 100 per pack

See our products being Made in the

on our web site:

Made in the United States of America

Drawings 13010 and 13205

Size W x L (mm)	Without Zipper	With Zipper
76 x 127	13010	13205
102 x 152	13020	13215
127 x 203	13035	13230
152 x 254	13050	13245
203 x 254	13065	13262
203 x 305	13070	13265
254 x 305	13075	13270
254 x 610	13090	13285
305 x 457	13115	13305
381 x 457	13125	13315
457 x 457	13130	13320
457 x 610	13135	13325

W = Opening







With Zipper

High Performance Static Dissipative Abrasion Resistant Coating Aluminum Shielding Layer Low Charging Static Dissipative Proprietary Polyester Layer Low Charging Static Dissipative Proprietary Inner Polyethylene Layer



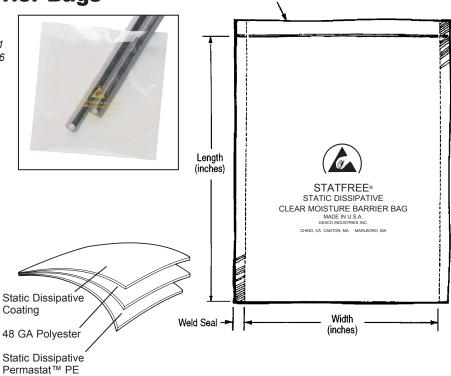
Statfree® Ultra Clear Barrier Bags

- Clear dissipative polyester film
- Dissipative inner and outer surfaces Rs 1 x 10⁴ to < 1 x 10¹¹ ohms per ANSI/ESD STM11.11
- >25lb puncture strength average per FTMS 101C/4046 with 9.5mm side seals
- · Made in the United States of America

Drawing **13878**

Size W x L (mm)	Without Zipper	With Zipper
76 x 127	13878	13879
101 x 152	13871	13880
127 x 203	13872	13881
203 x 254	13873	13882
254 x 304	13874	13883
304 x 406	13876	13884
304 x 457	13877	13885

W = Opening



Opening

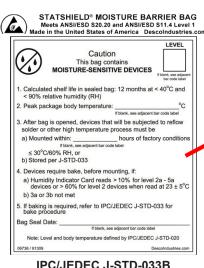
Statshield® Foil Moisture Barrier Bags 4.0 Mil

- IPC/JEDEC J-STD-033B moisture sensitive caution label printed on foil moisture barrier bag
- Film Laminate Metal Layered 0.102mm (4 mil) thick moisture barrier bag
- MVTR < 0.0003 grams per ASTM F1249-90
- <10 nJ energy penetration tested per ANSI/ESD STM11.31
- >25lb puncture strength average per FTMS 101C/4046
- Sold 100 per pack
- Made in the United States of America

Drawings **13960**

Size W x L (mm)	Item
254 x 508	13960
254 x 762	13961
305 x 508	13962
356 x 406	13963
406 x 457	13964
457 x 508	13965

W = Opening



IPC/JEDEC J-STD-033B moisture sensitive caution label







Statfree® Conductive Foam

- · Antistatic, low tribocharging; minimizes charge generation; material will conduct charges if grounded
- · Uniform protection; will not affect the solderability of device leads
- Made in the United States of America

Drawing 12100

Size Th x L x W (mm)	Low Density	High Density	Cross Linked
6.4 x 610 x 889			12660
6.4 x 610 x 914		12250	
9.5 x 610 x 914		12350	
13 x 610 x 914	12400	12450	
19.1 x 610 x 914		12550	
25.4 x 610 x 914	12600	12650	



DESCO Labels



06712

Compliance Verification Label, 38.1mm x 50.8mm, Permanent Adhesive, Roll of 1000



06713

ESD Protective Label, 25.4mm x 25.4mm, Permanent Adhesive, Roll of 1000



06731

Class 0A Label, 50.8mm x 50.8mm, Permanent Adhesive, Roll of 500



06722

Attention Label, RS-471, 50.8mm x 50.8mm, Permanent Adhesive, Roll of 500



06727

Attention Label, MIL 129N, 50.8mm x 50.8mm, Permanent Adhesive, Roll of 500



06730

Attention Label, RS-471, 50.8mm x 50.8mm, Reuseable Adhesive, Roll of 500



06770

Equipment Containing ESDS Label, 19.1mm x 50.8mm, Permanent Adhesive, Roll of 500

Wescorp ESD Tape

- ESD Cellulose Tape for general purpose applications
- · ESD Conductive Shielding Grid Tape for applications requiring EMI shielding
- Antistatic High Temp Masking Tape for PCB Masking
- Low Charging (ESD) High Temp Polyimide Tape

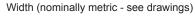
Technical Bulletin TB-3010

Drawings 79200, 81250, 81260, 81270, and 81282









DESCO

MENDA Wooden and Nylon Prober Tools

- · Will not mar delicate surfaces
- · Ideal for opening plastic cases
- Temperature resistant will not melt (item 35616)
- · Made in the United States of America

Drawings 35616, 35618, 35619, 35621, and 35622

Item	Туре	Length	Quantity
35616	Wood Orange Stick	178mm	100
35618	Nylon Point-Screwdriver	178mm	1
35619	Nylon Fork-Blade	178mm	1
35621	Nylon Spudger	140mm	1
35622	Nylon Point-Blade	152mm	1



MENDA Stainless Prober Tools

- · Ergonomic hex handle allows operator to better grip probe
- Non-magnetic, conductive, 300 series stainless steel
- · Made in the United States of America

Drawings 35122, 35123, 35617, 35623 and 35630

Item	Туре	Length
35122	Straight	133mm
35123	Hook	133mm
35617	Angle	133mm
35623	Curved	133mm
35630	Kit of all Four Tools	N/A



MENDA Small Nut Starter

- · Helps to hold and install small mounting hardware
- Holds nut sizes Regular No. 2 through Small No.6
- Made in the United States of America

Item	Description
35120	Small Nut Starter



MENDA Hand Sleeving Cutter

- · Adjustable stop allows cutting of sleeving to specified lengths
- · Ruler on side of tool helps to gauge cut length
- Made in the United States of America

Item	Description
35175	Hand Sleeving Cutter
35177	Replacement Blades - 100 Pack



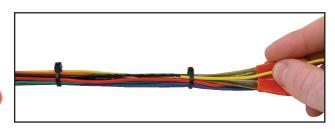


MENDA Harnessing Wire Threader

- · Designed for threading wires into an already tied harness
- · Helpful for dealing with retro-fits and ECOs
- · Made in the United States of America

Item	Description
35250	Wire Threader









MENDA Blow Vac

- Dual function no need to carry multiple appliances
- · Dissipative housing
- ESD protected utensils include: hose, rubber nozzle, crevice nozzle, carrying case, detachable power cord, and 5 stage filtration system

Technical Bulletin TB-4013

Item	Voltage	Power Cord	Adjustable Air Flow
35840	100/120 VAC	Japan/N. America	No
35841	100/120 VAC	Japan/N. America	Yes
35843	200/220 VAC	N/A	Yes



MENDA Hepa Vac

- 0.12 micron HEPA filtration for lead, glass, pollens, soot, etc.
- ESD protected utensils include: hose, gooseneck, crevice tool, crevice attachment brush, round brush
- ESD safe for cleaning debris from surface mount, pick and place, board routers / handlers and other equipment in your ESD protective areas
- · Made in the United States of America

Technical Bulletin TB-4003

Item	Voltage	Power Cord	Kit
35852	100/120 VAC	Japan/N. America	No
35857	100/120 VAC	Japan/N. America	Yes
35845	200/220 VAC	N/A	Yes



MENDA Series II Fume Extractor

- Complete system; all utensils included: Non-Hepa filter, 1.5m flex exhaust arms, remote start/stop button, and detachable power cord
- Easy setup
- Two station design for extraction of fumes, particles and vapors

Technical Bulletin TB-4015

Item	Voltage	Power Cord
35470	100-240 VAC	Japan/N. America









MENDA One-Touch and Take-Along Pumps

- One-Touch, "one handed" operation
- Precision machined valves, 100% stainless steel, 38-400 neck
- · Perfect for cleaning with cotton balls, pads, and brushes
- · Take-Along Pump locks, making it suitable for travel; air tight
- · Made in the United States of America

Item	Pump	Stem
35300	One-Touch	N/A
35346	One-Touch	2 oz
35301	One-Touch	4 oz
35302	One-Touch	6 oz
35303	One-Touch	8 oz
35700	Take-Along	N/A
35712	Take-Along	2 oz
35715	Take-Along	4 oz
35713	Take-Along	6 oz
35714	Take-Along	8 oz



Take-Along Locking pump - No Spills! No Fumes!



One-Touch

MENDA Pure-Touch and Pure-Take Pumps

Web Site: Desco.com • **Phone:** 909-627-8178

- · Purity protector stops fluid from reentering bottle
- One-Touch, "one handed" operation
- Precision machined valves, 100% stainless steel, 38-400 neck
- Pure-Take Pump locks, making it suitable for travel; air tight
- · Made in the United States of America

Item	Pump	Stem
35500	Pure-Touch	N/A
35539	Pure-Touch	2 oz
35501	Pure-Touch	4 oz
35502	Pure-Touch	6 oz
35503	Pure-Touch	8 oz
35800	Pure-Take	N/A
35811	Pure-Take	2 oz
35812	Pure-Take	4 oz
35813	Pure-Take	6 oz
35814	Pure-Take	8 oz



Pure-Take Locking Pump



Pure-Touch

MENDA Lasting-Touch

- Safe, one touch, "one handed" operation
- · Durable, lightweight polypropylene
- · Convenient "Swing Lid", reduces odors, maintains purity
- · Made in the United States of America

Item	Stem
35600	8 oz
35600	1002



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



MENDA durAstatic[®] Dissipative ESD Protective Bottles

- Available in 4 Colors Yellow, Blue, Orange, and Green HDPE durAstatic® bottles are dissipative and are designed to protect your valuable static sensitive printed circuitry
- · No migratory additives reduces the chance for contamination from the bottle
- Long lasting dissipative properties: Rtt: 1×10^4 to $< 1 \times 10^{11}$ ohms tested per ANSI/ESD STM11.12 <2 second charge decay, tested per IEC 61340-5-1:1998
- Made in the United States of America

Drawings 35276, 35282, 35270 and 35273

	One-Touch	Take-Along	Pure-Touch	Pure-Take
Blue 6 oz	35283	35287	35285	35286
Yellow 6 oz	35276	35497 + 35713	35267	35268
Orange 6 oz	35270	35491 + 35713	35491 + 35502	35491 + 35813
Green 6 oz	35273	35494 + 35713	35494 + 35502	35494 + 35813

Other sizes available at Desco.com



'IPA' Print with GHS Label

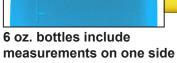


'ACETONE' Print with GHS Label



Screw Cap





MENDA Conductive ESD **Protective Bottles**

- · Permanently black conductive HDPE
- Low tribocharging
- Low internal contamination
- Rtt: 1×10^2 to $< 1 \times 10^7$ ohms per ANSI/ESD S11.13
- · Made in the United States of America

Drawing 35336

Item	Bottle Size	Pump
35336	6 oz	One-Touch







MENDA Natural HDPE Bottles

- High density polyethylene suitable for many solvents
- Square shape provides stability and saves storage space
- Wide opening that is easy to fill
- Translucent allows easy viewing of contents
- Made in the United States of America

	One-Touch	Take-Along	Pure-Touch	Pure-Take
HDPE 2 oz	35304	35701	N/A	883003
HDPE 4 oz	35305	35702	35505	883004
HDPE 6 oz	35309	35703	35508	883005
HDPE 8 oz	35312	35704	35510	883006







MENDA Round and Euro Style HDPE with Plastic Pump

- · High quality polypropylene
- The pump is durable and lightweight
- Can be locked with a twist suitable for leak free travel
- 35216 has "alcohol" imprint
- Made in the United States of America

Item	Bottle Size	Bottle Type	Color	Print
35211	4 oz	Round	White	N/A
35212	4 oz	Round	White	Printed
35215	8 oz	Euro	White	N/A
35216	8 oz	Euro	White	Alcohol
35235	8 oz	Euro	Black	N/A









MENDA HDPE with Plastic Pump

- Durable, high density polyethylene
- · Natural style bottle allows for easy viewing of fluid
- Perfect for alcohol dispensing; suitable for many solvents
- Convenient swing lid reduces odors and maintains purity
- · Made in the United States of America

Item	Bottle Size	Bottle Type
35603	8 oz	Round

Amber Glass with Plastic Pump

· Amber glass for light and plastic sensitive fluids









DESCO

MENDA ESD Badge Holders

- Made with a custom dissipative material made exclusively for Desco Industries and not available anywhere else!
- Ideal for use by electronic manufacturers working with ESD sensitive items
- Highly visible with yellow header and ESD Symbol allowing people to immediately know the badge holder is ESD protective
- Rtt: < 1 x 10¹¹ ohms per ANSI/ESD S11.11
- · Tribocharging: Less than 100 volts
- · We can do customs, just let us know your insert size!
- Made in the United States of America

Drawings 35010, 35014, 35016 and 35017

Item	Size (L x W)	Clip	Zipper
35010	68mm x 93mm, Vertical	Yes	No
35011	98mm x 65mm, Horizontal	Yes	No
35012	107mm x 74mm, Horizontal	Yes	No
35013	109mm x 85mm, Horizontal	Yes	No
35014	68mm x 111mm, Vertical	No	No
35015	100mm x 77mm, Horizontal	No	No
35016	68mm x 111mm, Vertical	No	Yes
35017	102mm x 86mm, Horizontal	No	Yes





MENDA Arm Badge Holder

- Ideal for use by electronic manufacturers working with ESD sensitive components
- Rtt: < 1 x 10¹¹ ohms per ANSI/ESD S11.11
- · Tribocharging: Less than 100 volts
- Perfect for active personnel if standard badges fall off their clothing
- Adjustable black elastic band flexes with arm movement for secure fit
- Made in the United States of America

Drawing 35193

Item	Dimensions (L x W)
35193	60mm x 85mm



MENDA ESD Vinyl Breakaway Lanyard

- Lanyard: 3.18mm wide
- Soft, frosty clear vinyl presents a low profile that doesn't compete with clothing
- Strap snaps around the neck and attaches to clip-on or retractable badge holder
- Made in the United States of America

Drawing 35067

Item	Size
35067	685mm







DESCO Self Stick Notes

- Static dissipative paper (Rs 1 x 10^6 to $< 1 \times 10^{10}$ ohms)
- Designed for use in ESD protected sreas
- Releasable strip of adhesive on the back
- Temporarily attaches to most surfaces and removes easily with no residue
- 50 sheets per pad

Drawings 16097

Item	Size (mm)
16097	102 x 76.2



Notepad Artwork



DESCO Posters and Signs

- · Promotes ESD awareness
- Made in the United States of 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).

Item	Poster Artwork	Size (mm)	Posters per Pack
06742	Foot/Wrist Ground Tester	432 x 559	5
06741	Area Warning	432 x 559	5
06751	Bench Sign	25.4 x 152	10
06750	Attention Sign, English/Spanish	102 x 254	1

ATTENTION

TEST STATIC GROUND **DEVICES HERE**

TEST YOUR FOOT GROUND AND WRIST STRAP OFTEN

FOOT GROUND TEST

ROCKER SWITCH TO "FOOTPLATE"
P ON BASE PLATE WITH ONE FOOT ONLY
SS AND HOLD THE TEST BUTTON FOR
SECONDS

WRIST STRAP TEST KER SWITCH TO "WRIST COR

SECONDS REEN LIGHT INDICATES A "GOOD" TEST

ATTENTION



CONTROL AREA

WEAR GROUNDING DEVICES AT ALL TIMES

THIS AREA CONTAINS SENSITIVE ELECTRONIC **DEVICES**







Front

Back

MENDA Circuitracer® Voltage and Continuity Tester

· Illuminated lamp is easy to confirm electrical circuit continuity

- Range: 0-600 volts or 1-10 ohms
- Probe: 3 volts at 270 ma maximum
- · Requires 2 AAA batteries for testing unpowered circuits (Batteries included with items #35130/35135)
- Made in the United States of America

Technical Bulletin TB-4005 and Drawings 35100 and 35135

Item	Description	
35100	Voltage Circuitracer®	
35130	Continuity Circuitracer®	
35135	Audible Continuity Circuitracer®	
35121	Low Voltage Lamp	









Statshield® Dissipative Chair Covers

- · Converts non-ESD chairs to low charging, groundable chairs
- Dissipative (1 x 10⁵ to < 1 x 10⁸ ohms per ANSI/ESD STM2.1 and ESD TR53) BASF carbon suffused mono-filament nylon
- · Washable polyester/cotton blend
- Chair back and seat connected to drag chain allows chair to be grounded when on conductive surface
- · Made in the United States of America

Drawing **07200**

Item	Usage
07200	ESD Areas





DESCO Dissipative Cleanroom Chair Covers

- · Dissipative class 100 cleanroom and higher chair covers
- Dissipative (1 x 10⁵ to < 1 x 10⁸ ohms per ANSI/ESD STM2.1 and ESD TR53) carbon grid micro-filament polyester
- Chair back and seat connected to drag chain
- Made in the United States of America

Drawing **07201**

Item	Usage	Packaging
07201	Cleanrooms	Regular
07202	Cleanrooms	Clean*

*This product has been packaged in a Certified Class 10,000 Cleanroom clean packaging facility

MENDA ESD Cable Ties

- D-Ring fastening is ideal for bundling trays and IC tubes
- Adjustable, releasable, non-stretch, and reusable easy to install
- · Dissipative hook and loop material
- Release generates <50 volts charge

Drawing 35653

Item	Size (mm)
35653	19 x 455
35654	19 x 505
35655	19 x 610
35656	19 x 760









MENDA Conductive Brushes

- Brushes minimize static charge generation and dissipate ESD charges to ground when held by grounded personnel
- · Dissipative polypropylene black handles are able to remove charges to ground
- Resistance of conductive fibers: 1 x 10³ to < 1 x 10⁵ ohms per ANSI/ESD STM11.12
- Resistance of dissipative handle: 1 x 10⁴ to < 1 x 10¹¹ ohms per ANSI/ESD STM11.12
- · Firm bristles are mainly for electronics, especially circuit boards
- Bristles are a mix of conductive synthetic yarn and horse hair

Drawing **35690**

Item	Handle Type	Bristle Hardness	Bristle Length
35690	Round	Firm	6mm Diameter
35691	Long	Firm	30mm
35692	Long	Firm	60mm
35693	Flat	Firm	50mm
35694	Flat	Semi-Fine	13mm
35695	Curved	Firm	76mm



MENDA Dissipative Nylon Brushes

- · Dissipative polypropylene black handles are able to remove charges to ground
- Permanent static dissipative bristles, made of Nylon 6.12, superior grade, high quality Nylon filament
- · Highly resilient, durable and abrasion resistant
- · For cleaning ESD sensitive assemblies
- · Hot stamped ESD symbol

Drawing **35686**

Item	Handle Type	Bristle Hardness	Bristle Length
35686	Flat	Firm	25mm
35687	Flat	Firm	50mm
35688	Long	Firm	30mm
35689	Curved	Firm	76mm



MENDA durAstatic[®] Tool Box

- Made of polypropylene using durAstatic[®] technology
- Static dissipative; charges removed when grounded
- Includes inner lift-out tray for added storage
- · Clean, no surface coating to rub off, washable

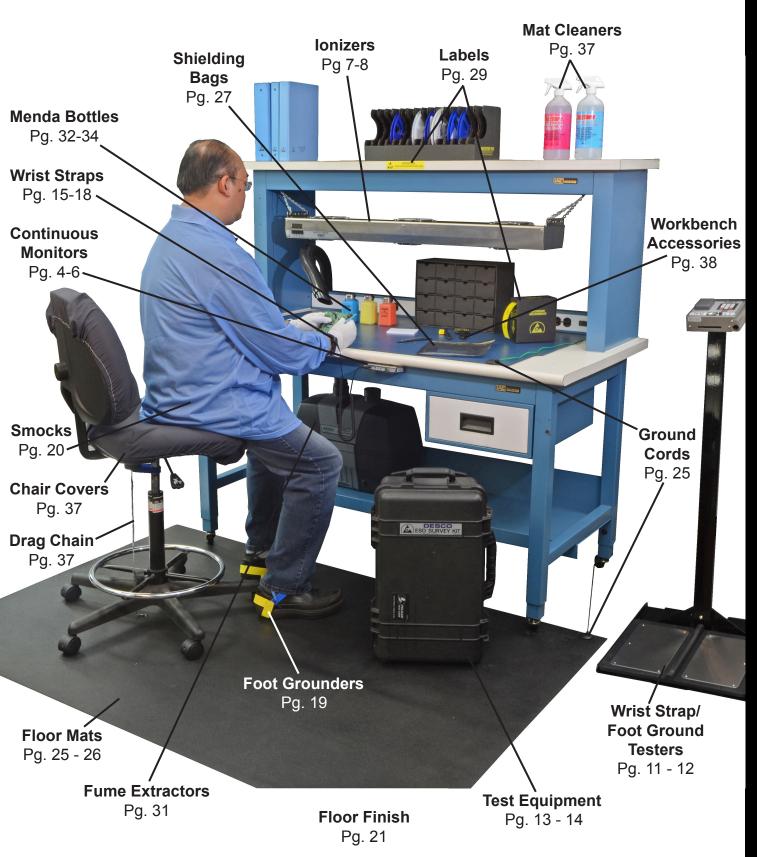
Drawing 35870

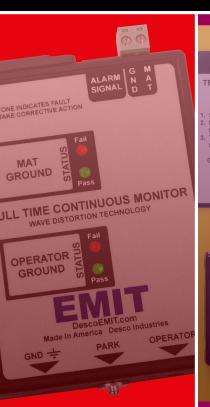
Item	Size (mm)
35870	368 x 191 x 127





Broadest Product Line of ESD Control Products in the Industry





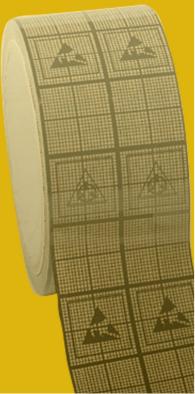
















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