Opening STATSHIELD* REMIUM ESD SHIELDING BAG METAL IN CONSTRUCTION MADE WITH RICHMOND FILM Length (L) DEVICES. HANDLE ONLY AT ESD PROTECTED AREAS STATSHIELD® Weld Width (W) Seel Side Weld Seals 3/8 in. See reverse side for available sizes.

The Statshield® watermark ensures you are getting top quality Desco proprietary shielding film manufactured by Richmond, reliably creating a Faraday Cage to protect ESD susceptible devices for storage and transportation outside an ESD protected area.

A fundamental ESD control principle (see ANSI/ESD S20.20 Foreword):

ESD susceptible items should be transported and stored outside an Electrostatic protected Area enclosed in low charging, static shielding protective packaging.

STATSHIELD® M/I SERIES

Specifications:

Electrical Properties Test Procedures/Method **Typical Values** Surface Resistance: <10¹⁰ ohms Outer Surface EOS/ESD S11.11 $<10^2$ ohms Aluminum Layer EOS/ESD S11.11 $<10^{10}$ ohms Inner Surface **EOS/ESD S11.11** <15 nJ (nanojoules) EOS/ESD S11.31 Static Shielding - Energy Penetration Charge Generation Teflon: 0.09 nC/sq. in. Modified Incline Plane Quartz: 0.01 nC/sq. in. Modified Incline Plane Capacitance Probe (to dissipate 1 KV) MIL-PRF-81705D, EIA 541

Physical Properties Bag Thickness: Polvester Laver 0.5 Mils Static Dissipative PET film **ASTM D-2103** Aluminum Laver 10-25 Angstroms Polyethylene Layer 2.5 Mils Static Dissipative PE film **ASTM D-2103 Total Thickness** 3.1 Mils **ASTM D-2103** Light Transmission (%) >40% (Tobias) **ASTM D-1003** Burst Strength (psi) >50 FTMS 101K. Method 2065.1 Heat Seal (lbs/in) >10 375°F, 1/2 sec 60 psi Seam Strength Pass MIL-PRF-81705D Tear Strength (lbs) >25 **ASTM D-1004** Tear Resistance 100 grams/mil ASTM D-1422 Puncture Resistance (lbs) >12 **ASTM D-2065** MVTR (gms / 100 in² / 24 hrs, 100°F) 0.35 FTMS 101C/2065 Abrasion Resistance >100 cvcles Sutherland Abr. (.0000 Steel Wool) Outgassing Pass ASTM E595

Chemical Properties

Non-corrosive

Corrosion No effect on aluminum, copper, silver, Sn-Pb coated foil, stainless steel, low carbon steel

Pass

Polycarbonate Capability, Yes No Amines or N-Octanoic Acid Not present



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

Static Dissipative Outer Polyester Layer Aluminum Shielding Laver

MIL-STD-3010. M3005

High Performance Static Dissipative Inner Polyethylene Layer



The bag's material meets the performance specification requirements of Mil-PRF-81705D, Type III. Bag is free of amines, N-octanoic acid, and heavy metals. Statshield®, Statfree®, and Faraday® are Registered Trademarks of Desco Industries Inc.

STATSHIELD® PREMIUM BAG, SHIELDING, METAL IN CONSTRUCTION

DESCO

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DRAWING NUMBER 12700

DATE: 02/06

PREMIUM METAL IN BAG SIZES							
Item #	Size (WxL)	Item #	Size (WxL)	Item #	Size (WxL)	Item #	Size (WxL)
12700	3" x 5"	12711	6" x 30"	12722	10" x 14"	12734	14" x 16"
12701	4" x 4"	12712	8" x 8"	12723	10" x 16"	12735	14" x 18"
12702	4" x 6"	12713	8" x 10"	12724	10" x 18"	12736	15" x 18"
12703	4" x 24"	12714	8" x 12"	12726	10" x 24"	12737	16" x 18"
12704	4" x 30"	12715	8" x 14"	12727	10" x 30"	12738	16" x 20"
12705	5" x 8"	12716	8" x 16"	12728	11" x 15"	12739	16" x 24"
12706	6" x 8"	12717	8" x 18"	12729	12" x 14"	12740	16" x 30"
12707	6" x 10"	12718	8" x 24"	12730	12" x 16"	12741	18" x 18"
12708	6" x 16"	12719	8" x 30"	12731	12" x 18"	12742	18" x 20"
12709	6" x 18"	12720	9" x 16"	12732	12" x 24"	12743	18" x 24"
12710	6" x 24"	12721	10" x 12"	12733	12" x 30"	12744	24" x 24"
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Packaged 100 per package

Desco ESD Bags Are Generally Reusable

The user must determine the suitability of ESD bags for particular applications and after one year from purchase date.

All ESD Shielding Bags that are ripped, torn, or scratched should be discarded. The Bag's protection is lost if there is an electrical path from the charge on the outside of the Bag to the inside layer and ESDS parts within. Scratching may compromise the Faraday Cage shielding protection of shielding bags so they will not perform their function of protecting stored or transported ESD susceptible devices from electrostatic charges and discharges.

From ANSI/ESD S20.20 paragraph 6.2.4.2. Packaging Guidance: "The objective of ESD protective packaging is to prevent a direct electrostatic discharge to the ESDS item contained within and allow for dissipation of charge from the exterior surface. In addition, the

packaging should minimize charging of the ESDS item in response to an external electrostatic field and triboelectrification. They may also lose static shielding properties by crumpling, puncturing and folding."

Some end users reuse a Statshield® Transparent Metal In ESD Shielding Bag up to six times and then discard.

Ideally, the user should test, auditing some percentage of the reused ESD Bags using test procedures outlined in ANSI EOS/ESD-DS11.11 - 1993 Surface Resistivity Standard, ESD-DS11.12 - 1996 Volume Resistance Measurements of Static Dissipative Planar Materials, and Shielding Materials EOS/ESD DS11.31 -1994.

The Organization shall define ESD protective packaging for all ESD susceptible item material movement within Protected Areas, between job sites and field service operations. See ANSI/ESD S20.20 paragraph 6.2.4.1. Packaging Requirements.

ESD susceptible items shall be packaged in ESD protective packaging while not in a Protected Area. See ANSI/ESD S20.20 paragraph 6.2.3.1.

Statshield® bags are packaged 100 per package in an oversized shielding bag rather than a cardboard box. Therefore, our bags are not exposed to water vapors that will degrade the metallized shielding layer. Our bags have an additional layer of barrier protection because of our packaging.

Ideally, ESD bags should be stored in a dry, well ventilated room with a reasonably consistent temperature of 68°F (20°C) and be protected from exposure to direct sunlight. Ideally, ESD bags should not be stored in ultraviolet sunlight, moisture, or heat.

The user shall determine the suitability of the product for their intended use. Desco's only obligation shall be to replace such quantity of the product proved to be defective. See full Limited Warranty information at www.desco.com/warranty.htm.

RoHS Compliance Statement
None of the following materials
are intentionally added in
manufacturing this product: lead,
mercury, cadmium, hexavalent
chromium, polybrominated
biphenyls (PBB) or
polybrominated diphenyl ethers
(PBDE) as outlined in the
Directive 2002/95/EC Article 4.1.
See Desco Industries Inc. letter
on-line at Desco.com.