# **3M Occupational Health and Environmental Safety** Fall Protection Equipment



User Instructions for 3M<sup>™</sup> Full Body Harnesses

Important: Keep these User Instructions for reference.



#### **GENERAL SAFETY INFORMATION**

## **Under Penalty of Law**

These *User Instructions* are not to be removed except by the user of this equipment. Current *User Instructions* must always be available to the user.

## **M** WARNING

- Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest. Users must read and understand the *User Instructions* provided with the product and be properly trained by their employer prior to use per OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards. Misuse or failure to follow warnings and instructions may result in serious personal injury or death. For proper use, see supervisor, *User Instructions*, or call Technical Service at 800-243-4630.
- 2. Failure to follow all instructions and limitations on the use of Full Body Harnesses may result in serious personal injury or death.
- 3. Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
- 4. Not all fall protection components are rated for the same user weight capacity. Only use components rated for the same weight capacity.
- 5. Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
- 6. Personal fall arrest systems, including Full Body Harnesses, must be inspected prior to each use for wear, damage, and other deterioration, and defective components must be immediately removed from service in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.
- 7. Do not use or install equipment without proper training from a "competent person" as defined by OSHA 29 CFR 1926.32(f).
- 8. Failure to have the leg straps of a Full Body Harness properly adjusted in the event of a fall arrest may result in serious personal injury or death.
- 9. The additional length of the D-ring extender must be taken into consideration during the clearance calculation process.
- 10. Never attach the unused leg of the lanyard back to the Full Body Harness at any location other than an approved lanyard storage keeper.
- 11. Store Full Body Harnesses in a cool, dry, clean environment, out of direct sunlight, when not in use.
- 12. After a fall occurs, or if any part of the load indicator warning is showing, the Full Body Harness must be removed from service and destroyed immediately.
- 13. If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service and destroy.
- 14. Only 3M, or persons or entities authorized in writing by 3M, shall make repairs or alterations to the equipment.

## **CAUTION**

1. If an energy absorbing lanyard is used in conjunction with a cross-arm strap anchorage connector, other anchorage extension, vertical lifeline, or horizontal lifeline, the additional length of the anchorage connector, or sag from the lifeline must be taken into consideration

- during the clearance calculation process.
- 2. Wear proper Personal Protective Equipment when performing Inspection, Cleaning and Maintenance procedures. Safety glasses & gloves are recommended.

#### FALL ARREST SYSTEM COMPONENTS

### **System Components**

A complete fall arrest system consists of the following components: Anchorage, Body Support, and Connecting Devices. **Note:** For continuous protection, more than one system may be needed.

## **Anchorage**

An anchorage, as defined by OSHA 29 CFR 1926.502 "shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows: as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a qualified person."

## **Body Support**

A body support is the component of a personal fall arrest system that is worn on or around the body. Per OSHA 29 CFR 1926.502 effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. **Note:** The use of a body belt in a positioning device system is acceptable. **Full body harnesses must be used for all fall arrest systems.** 

### **Connecting Devices**

A connecting device is the link between the body support and anchorage. Connecting devices will vary depending on the application.

#### USE INSTRUCTIONS AND LIMITATIONS

## **Important**

Before use, the user must read and understand these *User Instructions*. Keep these *User Instructions* for reference.

## **Purpose**

The 3M Full Body Harness is designed to be used as part of a personal fall arrest, controlled descent, restraint, rescue, ladder climbing, or work positioning system.

#### **Use Instructions**

- 1. The complete fall protection system must be planned (including all components, calculating fall clearance, and swing fall) before using.
- 2. Users must have a rescue plan, and the means at hand to implement it, that provides for the prompt rescue of employees in the event of a fall, or assures that employees are able to rescue themselves.

#### **Use Limitations**

- 1. Universal size Full Body Harnesses and individually sized Full Body Harnesses smaller than XXL are designed for users with a maximum capacity up to 310 lb (141 kg) including clothing, tools, etc.
- 2. Full Body Harnesses sized XXL and larger are designed for users with a maximum capacity

- up to 400 lb (181 kg) including clothing, tools, etc.
- 3. Full Body Harnesses shall be used as part of a personal fall arrest system that limits the maximum free fall distance to 6 ft (1.8 m). If used with appropriate connecting system, Full Body Harnesses may be used with free falls exceeding 6 ft (1.8 m).
- 4. Full Body Harnesses shall only be used as part of a controlled descent, or rescue system that eliminates free fall unless attached to the dorsal D-ring. When attached to the dorsal D-ring the maximum free fall distance is 6 ft (1.8 m).
- 5. Full Body Harnesses shall only be used as part of a ladder climbing system that limits the maximum free fall distance to 18 in (0.45 m) when attached to the frontal D-ring, or limits the maximum free fall distance to 6 ft (1.8 m) when attached to the dorsal d-ring.
- 6. Full Body Harnesses shall only be used as part of a work positioning system that limits the maximum free fall distance to 2 ft (0.6 m).
- 7. Only Full Body Harnesses with an integral seat strap are designed to be used in extended suspension applications.

### **Anchorages**

All anchorage requirements depend on the application that the Full Body Harness is used. In a personal fall arrest system the anchorage must meet the requirements of OSHA 29 CFR 1910.66 and ANSI Z359.1-2007. OSHA states:

Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, under the supervision of a qualified person.

ANSI Z359.1-2007 states that anchorages in a personal fall arrest system must have a strength capable of sustaining static loads, applied in all permitted directions by the system, of at least:

- (a) two times the maximum arrest force permitted on the system when certification exists, or
- (b) 5,000 pounds (22.2 kN) in the absence of certification.

The strength in (a) and (b) must be multiplied by the number of personal fall arrest systems attached to the anchorage, when more then one personal fall arrest system is attached to the anchorage.

Anchorages used in controlled descent and rescue systems must be capable of supporting loads of 3,100 lbf (13.8 kN) for non-certified anchorages or a 5:1 safety factor for certified anchorages per ANSI Z359.4-2007.

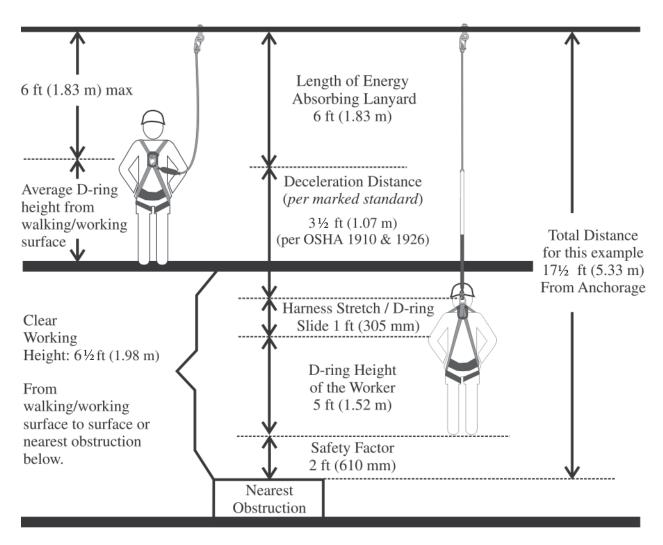
Anchorages used in restraint systems must be capable of supporting loads of 1,000 lbf (4.5 kN) for non-certified anchorages or two times the foreseeable force for certified anchorages per ANSI Z359.2-2007.

Anchorages used in work positioning systems must be capable of supporting loads of 3,000 lbf (13.3 kN) for non-certified anchorages or two times the foreseeable force for certified anchorages per ANSI Z359.2-2007.

All anchorages should be located vertically above the user's head and be positioned as to not exceed the maximum allowable free fall for the system.

## **Clearance Requirements**

The illustration below is an example of how to calculate the fall clearance requirements using energy absorbing lanyards connected to the dorsal D-ring of a Full Body Harness. Add the length of the energy absorbing lanyard (6 ft) to the marked maximum elongation of the lanyard during deceleration (3½ ft per OSHA 1910 & 1926), to the D-ring height of the worker (average 5 ft). Add 1 ft for the harness stretch and slide of the D-ring, and a safety factor of 2 ft to allow for the possibility of an improperly fitted harness, a taller than average worker and/or a miscalculation of distances. The total 17½ ft is the suggested safe fall clearance requirement for this example.



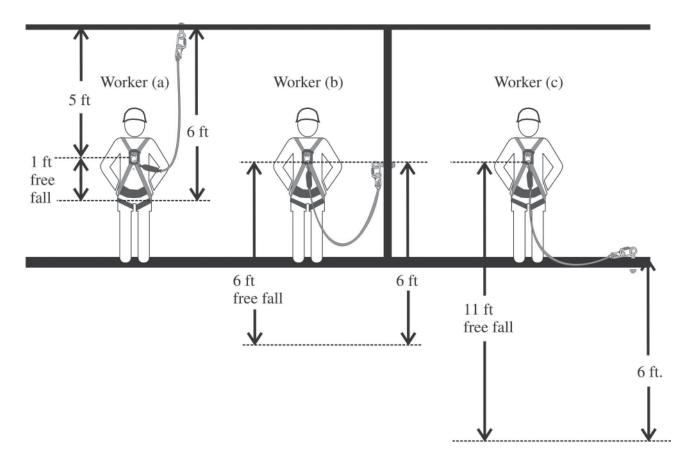
⚠ Caution: If an energy absorbing lanyard is used in conjunction with a cross-arm anchorage connector, other anchorage extension, vertical lifeline, or horizontal lifeline, the additional length of the anchorage connector, or sag from the lifeline must be taken into consideration during the clearance calculation process.

#### Free Fall

To calculate the free fall distance using an Energy Absorbing Lanyard connected to the dorsal D-ring of a full body harness and an anchorage connector that is above the workers shoulders, **Worker** (a), <u>subtract</u> the distance from the D-ring on the harness to the anchorage connector (5 ft) from the length of the Energy Absorbing Lanyard (6 ft). The free fall for Worker (a) is 1 ft.

The free fall distance with an Energy Absorbing Lanyard connected to the dorsal D-ring of a full body harness to an anchorage connector that is at the workers shoulders, **Worker** (b), is <u>equal</u> to the length of the lanyard. The free fall for Worker (b) is 6 ft.

To calculate the free fall distance using an Energy Absorbing Lanyard connected to the dorsal D-ring of a full body harness to an anchorage connector that is below the workers shoulders, **Worker** (c), <u>add</u> the distance from D-ring on the harness to the anchorage connector (5 ft), to the length to the of the Energy Absorbing Lanyard (6 ft). The free fall for worker (c) is 11 ft.



## **Swing Falls**

To minimize the possibility of a swing fall, work as directly under the anchorage connector as possible. Striking objects horizontally, due to the pendulum affect, may cause serious injury. Swing falls also increase the vertical fall distance of a worker, compared to a fall directly below the anchorage connector. Swing falls may be reduced by using overhead anchorage connectors that move with the worker.

## **Compatibility**

All 3M Full Body Harnesses must only be coupled to compatible connectors. OSHA 29 CFR 1926.502 prohibits snaphooks from being engaged to certain objects unless two requirements are met: snaphook must be a locking type and must be "designed for" making such a connection. "Designed for" means that the manufacturer of the snaphook specifically designed the snaphook to be used to connect to the equipment in question. The following connections must be avoided, because they can result in rollout\* when a nonlocking snaphook is used:

- Direct connection of a snaphook to horizontal lifeline.
- Two (or more) snaphooks connected to one D-ring.
- Two snaphooks connected to each other.
- A snaphook connected back on its integral lanyard.
- A snaphook connected to a webbing loop or webbing lanyard.
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.

\*Rollout: A process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled. (ANSI Z359.1-2007)

#### **Attachment Points**



The dorsal (back) D-ring affixed to all 3M Full Body Harnesses is for fall arrest or restraint systems. The dorsal D-ring may also be used for rescue applications.



A front D-ring is used for fall arrest in vertical systems that limit the free fall distance to 18 in. The front D-ring may be used for restraint, and ladder climbing systems.



The seat strap D-rings are to be used for rescue, and controlled descent applications. The front D-ring may also be used for rescue, and controlled descent.



Shoulder D-rings may be used in rescue applications. Always use both shoulder D-rings simultaneously, utilizing the 3M M30-SBA Spreader Bar Assembly. **The shoulder D-rings are <u>not</u> for fall arrest or climbing applications.** 



Hip D-rings are used for positioning and restraint systems. Always use both hip D-ring connections when securing work positioning devices. **Hip D-rings are not for fall arrest or climbing applications.** 

#### **DONNING**

#### **Before Each Use**

Users of personal fall arrest systems must have a rescue plan in place if the users cannot rescue themselves, as well as the means to carry out the rescue.

**⚠** Warning: Not all fall protection components are rated for the same user weight capacity. Only use components rated for the same weight capacity.

A Full Body Harness must be inspected prior to each use for wear, damage, and other deterioration. All webbing must be inspected for tears, cuts, fraying, abrasion, discoloration, or other signs of wear and damage. Sewn terminations should be secure, complete, and not visibly

damaged. No load indicators shall be deployed. Damaged and other deteriorated and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.

## **Donning a Vest Style Full Body Harness**

- 1. Hold the dorsal (back) D-ring of the harness and shake to allow all straps to fall into place. Make certain straps are not buckled or twisted.
- 2. Slip shoulder strap over one shoulder, then pull the other shoulder strap around the back and over the second shoulder, much like putting on a jacket. The dorsal D-ring will be located on your back, while the chest strap is located in the front. Straps must not be tangled as the harness hangs freely from shoulders.
- 3. Pull one leg strap between your legs and connect it to the opposite end on the same side. Repeat with second leg strap. Ensure that the leg straps are not twisted or crossed. Leg straps must be comfortably snug to achieve proper adjustment.

## **⚠** Warning: Failure to have the leg straps of a Full Body Harness properly adjusted in the event of a fall arrest may result in serious personal injury or death.

- 4. Fasten the chest strap across the lower chest just above the nipple line. Chest strap should be snug, with excess strap secured through the web keepers.
- 5. Adjust shoulder straps with the two adjusters located at the lower end of the shoulder strap. Adjust the left and right sides to the same length. The chest strap, and front D-ring if applicable, must be centered on your lower chest. Adjustment of the shoulder straps may cause the dorsal D-ring to move and may need to be repositioned up or down as needed to achieve correct position. After all straps have been tightened and harness fits snugly, secure all excess straps through the web keepers.

## **Donning a Crossover Style Full Body Harness**

- 1. Hold the dorsal (back) D-ring of the harness, located just above the back strap, and shake to allow all straps to fall into place. Make certain straps are not buckled or twisted.
- 2. Locate the shoulder straps between the dorsal and front D-ring and slip the harness over your head. The arms are placed through the openings on each side of the shoulder straps. The dorsal D-ring will be located on your back, while the chest will cross over the lower chest in the front. Straps must not be tangled as the harness hangs freely from shoulders.
- 3. Fasten one shoulder strap that crosses over the lower chest to connecting end on the opposite hip. Be sure not to connect the shoulder strap to the connecting end of the leg strap. Repeat with second shoulder strap, and ensure that the straps are not twisted.
- 4. Pull one leg strap between your legs and connect it to the opposite end on the same side. Repeat with second leg strap. Ensure that the leg straps are not twisted or crossed. Leg straps should be comfortably snug when properly adjusted.

## **⚠** Warning: Failure to have the leg straps of a Full Body Harness properly adjusted in the event of a fall arrest may result in serious personal injury or death.

5. Adjust shoulder straps with the two adjusters located at the lower end of the shoulder strap. Adjust the left and right sides to the same length. Chest D-ring keeper must be centered on your lower chest. Adjustment of the shoulder straps may cause the dorsal D-ring to move, and may need to be repositioned up or down as needed to achieve correct position. After all straps have been tightened and harness fits snugly, secure all excess straps through the web keepers.

#### **MATERIALS**

## Webbing

All 3M Full Body Harnesses are constructed with 1¾ in (44 mm) polyester webbing.

The Saturn Full Body Harness has a 1¾ in (44 mm) Nomex® and polyester webbing.

The Coated Web Full Body Harness utilizes a 1¾ in (44 mm) polyurethane coated polyester webbing.

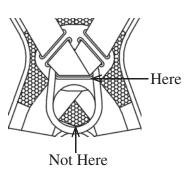
#### Hardware

All hardware on the Full Body Harness meet the ANSI Z359.1-2007 standard and OSHA 29 CFR 1910.66 and 1926.502 requirements.

#### **ACCESSORIES**

## 3M R-100 Suspension Trauma Strap

The 3M R-100 Suspension Trauma Strap is available for use on all 3M Full Body Harnesses. The R-100 Suspension Trauma Strap must be choked onto the D-ring slot, located above the primary connection opening of the D-ring. Do not connect the R-100 Suspension Trauma Strap to the primary D-ring opening. See R-100 Suspension Trauma Strap *User Instructions* for more information.



## **3M D-ring Extenders**

#### Part Number 5550

The 5550 D-ring Extender incorporates a snaphook and D-ring. Attach the snaphook end of the 5550 D-ring Extender to the primary dorsal D-ring of the Full Body Harness. The D-ring of the 5550 D-ring Extender becomes the dorsal attachment point of the Full Body Harness.

#### Part Number 5552

The 5552 D-ring Extender incorporates a soft loop and two D-rings. Pass the soft loop end of the 5552 D-ring Extender through the primary dorsal D-ring of the Full Body Harness. Secure by passing the two D-rings of the 5552 D-ring Extender through the soft loop. Each D-ring of the 5552 D-ring Extender becomes a dorsal attachment point of the Full Body Harness.

**⚠** Warning: The additional length of the D-ring extender must be taken into consideration during the clearance calculation process.

## **Lanyard Storage keepers**

Approved lanyard storage keepers are located on all 3M Full Body Harnesses where the shoulder strap meets the chest strap. Lanyard storage keepers are approved only for the connection of the unused lanyard leg to the harness.

**⚠** Warning: Never attach the unused leg of the lanyard back to the Full Body Harness at any location other than an approved lanyard storage keeper.

#### **INSPECTION**

### Frequency

Full Body Harnesses must be inspected prior to each use, and annually by an OSHA defined "competent person" other than the user.

#### Criteria

**⚠** Warning: If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service and destroy.

⚠ Warning: After a fall occurs, or if any part of the load indicator warning is showing, the Full Body Harness must be removed from service and destroyed immediately.

All components of the Full Body Harness must be inspected.

To inspect webbing, bend a portion of the webbing 6-8 inches into an upsidedown 'U' shape. Continue along all webbing inspecting for tears, cuts, fraying, abrasion, discoloration, burns, holes, mold, pulled or broken stitches, or other signs of wear and damage. Adjust all keepers, buckles, padding and D-ring to inspect webbing hidden by these components.

Sewn terminations must be secure, complete, and not visibly damaged.

All markings must be legible and attached to the product.

All hardware must be free of cracks, sharp edges, deformation, corrosion, or any evidence of defect.

## CLEANING, MAINTENANCE, STORAGE

**⚠** Caution: Wear proper Personal Protective Equipment when performing Inspection, Cleaning and Maintenance procedures. Safety glasses & gloves are recommended.

#### **Cleaning**

Full Body Harnesses can be wiped down with a mild detergent and clean water solution, and rinsed with a dampened clean cloth to remove detergent. The hardware can also be wiped down to remove grease, or dirt with a clean dry cloth.

#### Maintenance

Any Full Body Harness requiring maintenance must be tagged "unusable" and removed from service.

**⚠** Warning: Only 3M, or persons or entities authorized in writing by 3M, shall make repairs or alterations to the equipment.

Cleaning maintenance may be performed by the user.

## **Storage**

Full Body Harnesses should be stored in a cool, dry place out of direct sunlight. Do not store in areas where damage from environmental factors such as heat, light, excessive moisture, oil, chemicals and their vapors, or other degrading elements may be present. Do not store damaged equipment or equipment in need of maintenance in the same area as product approved for use. Equipment must be cleaned and dried prior to storage.

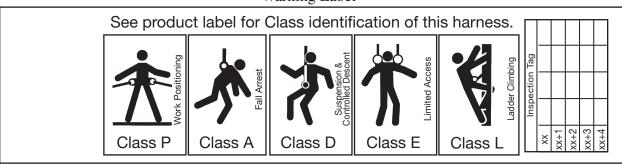
Equipment that has been stored for an extended period must be inspected as defined in these *User Instructions* prior to use.

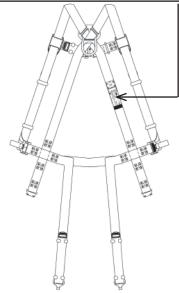
#### **LABELING**

All labeling must be legible and attached to the Full Body Harness.



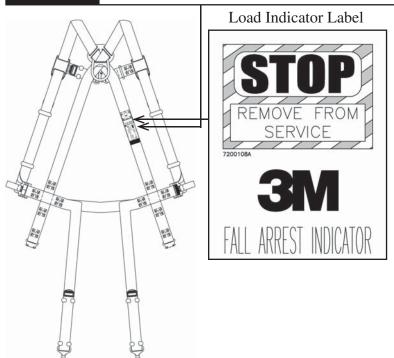
#### Warning Label

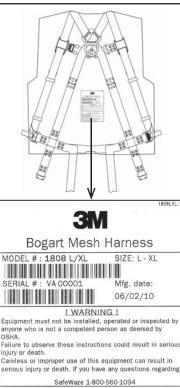




#### Product Label







Product Label

Meets the following guidelines: OSHA 1910/1926.602, ANSI Z359.1, CSA Z259.10 CLASS AP,

US Patent Nº:4.731.882; Canadian Patent Nº:1.246.506

Material: Metal: Drop forged steel, light alloy
Fabric: Mesh polyester, Webbing polyester

Maximum capacity: 310 lbs

ANSI/ISEA 107-2004 Class II

## MODELS AND PART NUMBERS

## **Full Body Harnesses**

LOGO (L-XL), 1012FEO-LOGO (S-M), 1012FEO-LOGO-XXL, 1012FEO (L-XL), 1012FEO (S-M), 1012FEO-XXL, 1012FE (S-M), 1012FE-XXL, 1012F-LOGO (L-XL), 1012F-LOGO (S-M), 1012F-LOGO-XXL, 1012F (L-XL), 1012FO-LOGO (L-XL), 1012FO-LOGO (S-M), 1012FO-LOGO-XXL, 1012FO (L-XL), 1012FO (S-M), 1012FQ-XXL, 1012F (S-M), 1012F-XXL, 1012-LOGO (L-XL), 1012-LOGO (S-M), 1012-LOGO-XXL, 1012 (L-XL), 1012Q-LOGO (L-XL), 1012Q-LOGO (S-M), 1012Q-LOGO-XXL, 1012Q (L-XL), 1012Q (S-M), 1012Q-XXL, 1012 (S-M), 1012-XXL, 1013F, 1013FE, 1013FE-LOGO, 1013FEQ, 1013FEQ-LOGO, 1013FEQ-XXL, 1013FEQ-XXL-LOGO, 1013FE-XXL, 1013FE-XXL-LOGO, 1013F-LOGO, 1013FQ, 1013FQ-LOGO, 1013FQ-XXL, 1013FQ-XXL-LOGO, 1013F-XXL, 1013F-XXL-LOGO, 1014F, 1014FE, 1014FE-LOGO, 1014FEQ, 1014FEQ-LOGO, 1014FEQ-XXL, 1014FEQ-XXL-LOGO, 1014FE-XXL, 1014FE-XXL-LOGO, 1014F-LOGO, 1014FO, 1014FO-LOGO, 1014FO-XXL, 1014FO-XXL-LOGO, 1014F-XXL, 1014F-XXL-LOGO, 1050, 1050E, 1050E-LOGO, 1050EQ, 1050EQ-LOGO, 1050EQ-XXL, 1050EQ-XXL-LOGO, 1050E-XXL, 1050E-XXL-LOGO, 1050F, 1050FE, 1050FE-LOGO, 1050FEO, 1050FEO-LOGO, 1050FEO-XXL, 1050FEO-XXL-LOGO, 1050FE-XXL, 1050FE-XXL-LOGO, 1050F-LOGO, 1050FQ-LOGO, 1050FQ-XXL, 1050FO-XXL-LOGO, 1050F-XXL, 1050F-XXL-LOGO, 1050-LOGO, 1050O, 1050O-LOGO, 1050O-XXL, 1050Q-XXL-LOGO, 1050-XXL-LOGO, 1051, 1051E, 1051E-LOGO, 1051EQ, 1051EQ-LOGO, 1051EQ-XXL, 1051EQ-XXL-LOGO, 1051E-XXL, 1051E-XXL-LOGO, 1051F, 1051FE, 1051FE-LOGO, 1051FEQ, 1051FEQ LOGO, 1051FEQ-XXL, 1051FEQ-XXL-LOGO, 1051FE-XXL, 1051FE-XXL-LOGO, 1051F-LOGO, 1051FQ, 1051FQ-LOGO, 1051FQ-XXL, 1051FQ-XXL-LOGO, 1051F-XXL, 1051F-XXL-LOGO, 1051-LOGO, 1051Q, 1051Q-LOGO, 1051Q-XXL, 1051Q-XXL-LOGO, 1051-XXL-LOGO, 1052E (L-XL), 1052E (L-XL)-LOGO, 1052EQ (L-XL), 1052EQ (L-XL)-LOGO, 1052EQ (S-M), 1052EQ (S-M)-LOGO, 1052EQ-XXL, 1052EQ-XXL-LOGO, 1052E (S-M), 1052E (S-M)-LOGO, 1052E-XXL, 1052E-XXL-LOGO, 1052FE (L-XL), 1052FE (L-XL)-LOGO, 1052FEQ (L-XL), 1052FEQ (L-XL)-LOGO, 1052FEQ (S-M), 1052FEQ (S-M)-LOGO, 1052FEQ-XXL, 1052FEQ-XXL-LOGO, 1052FE (S-M), 1052FE (S-M)-LOGO, 1052FE-XXL, 1052FE-XXL-LOGO, 1052F (L-XL), 1052F (L-XL)-LOGO, 1052FQ (L-XL), 1052FQ (L-XL)-LOGO, 1052FQ (S-M), 1052FQ (S-M)-LOGO, 1052FO-XXL, 1052FO-XXL-LOGO, 1052F (S-M), 1052F (S-M)-LOGO, 1052F-XXL, 1052F-XXL-LOGO, 1052 (L-XL), 1052 (L-XL)-LOGO, 1052Q (L-XL), 1052Q (L-XL)-LOGO, 1052Q (S-M), 1052Q (S-M)-LOGO, 1052Q-XXL, 1052Q-XXL-LOGO, 1052 (S-M), 1052 (S-M)-LOGO, 1052-XXL, 1052-XXL-LOGO, 1053, 1053-XXL, 1053-LOGO, 1053-XXL-LOGO, 1053F, 1053FE, 1053FE-LOGO, 1053FEQ, 1053FEQ-LOGO, 1053FEQ-XXL, 1053FEQ-XXL-LOGO, 1053FE-XXL, 1053FE-XXL-LOGO, 1053F-LOGO, 1053FQ, 1053FQ-LOGO, 1053FQ-XXL, 1053FQ-XXL-LOGO, 1053F-XXL, 1053F-XXL-LOGO, 1054, 1054-XXL, 1054-LOGO, 1054-XXL-LOGO,1054F, 1054FE, 1054FE, 1054FEQ, 1054FEQ, 1054FEQ-LOGO, 1054FEQ-XXL, 1054FEQ-XXL LOGO, 1054FE-XXL, 1054FE-XXL-LOGO, 1054F-LOGO, 1054FO, 1054FO-LOGO, 1054FO-XXL, 1054FO-XXL-LOGO, 1054F-XXL, 1054F-XXL-LOGO, 1051-XXL, 1050-XXL, SWSW1051(S-M), SWSW1051(L-XL), 1050-R, 1051-N460-LOGO, 1051-N460-XXL-LOGO

Saturn - 1020, 1021, 1030, 1031, 1020F, 1020F-LOGO, 1020FQ, 1020FQ-LOGO, 1020FQ-XXL, 1020FQ-XXL-LOGO, 1020F-XXL, 1020F-XXL-LOGO, 1020-LOGO, 1020Q-LOGO, 1020Q-XXL, 1020Q-XXL-LOGO, 1020-XXL, 1020-XXL-LOGO, 1021F, 1021F-LOGO, 1021FQ, 1021FQ-LOGO, 1021FQ-XXL, 1021FQ-XXL-LOGO, 1021F-XXL, 1021F-XXL-LOGO, 1021-LOGO, 1021Q, 1021Q-LOGO, 1021Q-XXL, 1021Q-XXL-LOGO, 1021-XXL, 1021-XXL-LOGO, 1030F, 1030F-LOGO, 1030FQ, 1030FQ-LOGO, 1030FQ-XXL, 1030FQ-XXL-LOGO, 1030F-XXL, 1030F-XXL-LOGO, 1030F-XXL-LOGO, 1030F-XXL-LOGO, 1030F-XXL-LOGO, 1031F-XXL-LOGO, 1031F, 1031F-LOGO, 1031FQ, 1031FQ-LOGO, 1031FQ-XXL, 1031FQ-XXL-LOGO, 1031F-XXL, 1031F-XXL-LOGO, 1031-LOGO, 1031Q, 1031Q-LOGO, 1031Q-XXL, 1031Q-XXL-LOGO, 1031-XXL, 1031-XXL-LOGO, 1321 (L-XL), 1321 (L-XL)-LOGO, 1321 (S-M), 1321 (S-M)-LOGO, 1321F (L-XL), 1321F (L-XL)-LOGO, 1321FQ-XXL-LOGO, 1321FQ-XX

**Apache** - 1711-XXL, 1711-XXL-LOGO, 1711-XXXL, 1711-XXXL-LOGO, 1040-XXL, 1040-XXXL, 1041-XXL, 1040-XXL-LOGO, 1040-XXXL-LOGO, 1041-XXL-LOGO, 1710-XXL-LOGO, 1710-XXXL, 1710-XXXL, 1041-XXXL-LOGO, 1710-XXXL-LOGO, 1710-XXXL-LOG

**SafeLight** – 10650, 10650-LOGO, 10651, 10651-LOGO, 10810/208512-LOGO, 10810, 10810-FI, 10810S, 10810/208512, 10855 (S-M), 10855 (L-XL), 10855(XXL), 10855 (XXXL), 10810-LOGO, 10910, 10910/209512-LOGO, 10910F, 10910-FI-LOGO, 10910F-LOGO, 10910-LOGO, 10911, 10911F, 10911-FI-LOGO, 10911F-LOGO, 10951-LOGO, 10950-FI-LOGO, 10950-LOGO, 10950-XS, 10950-XS-LOGO, 10951, 10951-FI-LOGO, 10951-LOGO, 10951-XS, 10951-XS-LOGO, 10952 (L-XL), 10952 (L-XL)-LOGO, 10952 (S-M), 10952 (S-M)-LOGO, 10952F (L-XL), 10952F (L-XL)-LOGO, 10952F-XXL, 10952F-XXL-LOGO, 10952-XXL, 10952-XXL-LOGO, 10953F, 10953F-LOGO, 10954F, 10954F-LOGO, 10911-XS, 10911F-XS, 10911F-XS, 10911F-XS-LOGO

**Airflex** - 1510-ND (S-M), 1510-ND (L-XL), 1510-ND (XXL), 1511-ND-S, 1511-ND-M, 1511-ND-L, 1511-ND-XL, 1511-ND (XXL), 1515-S, 1515-M, 1515-L, 1515-XL, 1515-XXL

**Omega** - M1311-S, M1311-M, M1311-L, M1311-XL, M1311-XXL, WE(M) 1311-S, WE(M) 1311-M, WE(M) 1311-L, WE(M) 1311-XL

Elavation<sup>TM</sup> - 7510EQ (L-XL), 7510EQ (L-XL)-LOGO, 7510EQ (S-M), 7510EQ (S-M)-LOGO, 7510EQ-XXL, 7510EQ-XXL-LOGO, 7510FEQ (L-XL), 7510FEQ (L-XL)-LOGO, 7510FEQ (S-M), 7510FEQ (S-M)-LOGO, 7510FEQ-XXL, 7510FEQ-XXL-LOGO, 7510FQ (L-XL), 7510FQ (L-XL)-LOGO, 7510FQ (S-M), 7510FQ (S-M)-LOGO, 7510FQ-XXL, 7510FQ-XXL-LOGO, 7510Q (L-XL), 7510Q (L-XL)-LOGO, 7510Q (S-M), 7510Q (S-M)-LOGO, 7510Q-XXL, 7510Q-XXL-LOGO, 7511EQ (L-XL), 7511EQ (L-XL)-LOGO, 7511EQ (S-M), 7511EQ (S-M)-LOGO, 7511EO-XXL, 7511EO-XXL-LOGO, 7511FEO (L-XL), 7511FEO (L-XL)-LOGO, 7511FEO (S-M), 7511FEQ (S-M)-LOGO, 7511FEQ-XXL, 7511FEQ-XXL-LOGO, 7511FQ (L-XL), 7511FQ (L-XL) LOGO, 7511FQ (S-M), 7511FQ (S-M)-LOGO, 7511FQ-XXL, 7511FQ-XXL-LOGO, 7511Q (L-XL), 7511Q (L-XL)-LOGO, 7511Q (S-M), 7511Q (S-M)-LOGO, 7511Q-XXL, 7511Q-XXL-LOGO, 7512EQ (L-XL), 7512EQ (L-XL)-LOGO, 7512EO (S-M), 7512EO (S-M)-LOGO, 7512EO-XXL, 7512EO-XXL-LOGO, 7512FEO (L-XL), 7512FEQ (L-XL)-LOGO, 7512FEQ (S-M), 7512FEQ (S-M)-LOGO, 7512FEQ-XXL, 7512FEQ-XXL-LOGO, 7512FQ (L-XL), 7512FQ (L-XL)-LOGO, 7512FQ (S-M), 7512FQ (S-M)-LOGO, 7512FQ-XXL, 7512FQ-XXL-LOGO, 7512Q (L-XL), 7512Q (L-XL)-LOGO, 7512Q (S-M), 7512Q (S-M)-LOGO, 7512Q-XXL, 7512Q-XXL-LOGO, 7513FEQ (L-XL), 7513FEQ (L-XL)-LOGO, 7513FEQ (S-M), 7513FEQ (S-M)-LOGO, 7513FEQ-XXL, 7513FQ-XXL-LOGO, 7513FQ (L-XL), 7513FQ (L-XL)-LOGO, 7513FQ (S-M), 7513FQ (S-M)-LOGO, 7513FQ-XXL, 7513FQ-XXL-LOGO, 7514Q (S-M)-LOGO, 7514Q (L-XL)-LOGO, 7514-XXL-LOGO, 7514FEQ (L-XL), 7514FEO (L-XL)-LOGO, 7514FEO (S-M), 7514FEO (S-M)-LOGO, 7514FEO-XXL, 7514FEO-XXL-LOGO, 7514FQ (L-XL), 7514FQ (L-XL)-LOGO, 7514FQ (S-M), 7514FQ (S-M)-LOGO, 7514FQ-XXL, 7514FQ-XXL-LOGO, 7550EQ (L-XL), 7550EQ (L-XL)-LOGO, 7550EQ (S-M), 7550EQ (S-M)-LOGO, 7550EQ-XXL, 7550EQ-XXL-LOGO, 7550FEQ (L-XL), 7550FEQ (L-XL)-LOGO, 7550FEQ (S-M), 7550FEQ (S-M)-LOGO, 7550FEQ-XXL, 7550FEO-XXL-LOGO, 7550FO (L-XL), 7550FO (L-XL)-LOGO, 7550FO (S-M), 7550FO (S-M)-LOGO, 7550FQ-XXL, 7550FQ-XXL-LOGO, 7550Q (L-XL), 7550Q (L-XL)-LOGO, 7550Q (S-M), 7550Q (S-M)-LOGO, 7550Q-XXL, 7550Q-XXL-LOGO, 7551EQ (L-XL), 7551EQ (L-XL)-LOGO, 7551EQ (S-M), 7551EQ (S-M)-LOGO, 7551EQ-XXL, 7551EQ-XXL-LOGO, 7551FEQ (L-XL), 7551FEQ (L-XL)-LOGO, 7551FEQ (S-M), 7551FEQ (S-M)-LOGO, 7551FEQ-XXL, 7551FEQ-XXL-LOGO, 7551FQ (L-XL), 7551FQ (L-XL)-LOGO, 7551FQ (S-M), 7551FQ (S-M)-LOGO, 7551FQ-XXL, 7551FQ-XXL-LOGO, 7551Q (L-XL), 7551Q (L-XL)-LOGO, 7551Q (S-M), 7551Q (S-M)-LOGO, 7551Q-XXL, 7551Q-XXL-LOGO, 7552EQ-L, 7552EQ-L-LOGO, 7552EO-M, 7552EO-M-LOGO, 7552EO-S, 7552EO-S-LOGO, 7552EO-XL, 7552EO-XL-LOGO, 7552EO-XXL, 7552EQ-XXL-LOGO, 7552FEQ (L-XL), 7552FEQ (L-XL)-LOGO, 7552FEQ (S-M), 7552FEQ (S-M)-LOGO, 7552FQ-XXL, 7552FQ (L-XL), 7552FQ (L-XL)-LOGO, 7552FQ (S-M), 7552FQ (S-M)-LOGO, 7552FQ-XXL, 7552Q (L-XL), 7552Q (L-XL)-LOGO, 7552Q (S-M), 7552Q (S-M)-LOGO, 7552Q-XXL, 7552Q-XXL-LOGO, 7553FEO (L-XL), 7553FEO (L-XL)-LOGO, 7553FEO (S-M), 7553FEO (S-M)-LOGO, 7553FEO-XXL, 7553FEO-XXL-LOGO, 7553FQ (L-XL), 7553FQ (L-XL)-LOGO, 7553FQ (S-M), 7553FQ (S-M)-LOGO, 7553FQ-XXL, 7553FQ-XXL-LOGO, 7554FEQ (L-XL), 7554FEQ (L-XL)-LOGO, 7554FEQ (S-M), 7554FEQ (S-M)-LOGO, 7554FEQ-XXL, 7554FEQ-XXL-LOGO, 7554FQ (L-XL), 7554FQ (L-XL)-LOGO, 7554FQ (S-M), 7554FQ (S-M)-LOGO, 7554FQ-XXL, 7554FQ-XXL-LOGO, 7555 (S-M), 7555 (L-XL), 7555 (XXL), 7555 (XXXL), WM7510 (S-M), WM7510 (L-XL), WM7510-XXL, 7512FB (S-M), 7512FB (L-XL), 7512FB-XXL

Ameba - 1410, 1411, 1450, 1451, 1453F, 1454F, 1410-LOGO, 1410O, 1410O-LOGO, 1411-LOGO, 1411O,

14110-LOGO, 1450-LOGO, 14500, 14500-LOGO, 1451-LOGO, 14510, 14510-LOGO, 1452 (L-XL), 1452 (L-XL)-LOGO, 1452Q (L-XL), 1452Q (L-XL)-LOGO, 1452 (S-M), 1452 (S-M)-LOGO, 1452Q (S-M), 1452Q (S-M)-LOGO, 1452F (L-XL), 1452F (L-XL)-LOGO, 1452FO (L-XL, 1452FO (L-XL)-LOGO, 1452F (S-M), 1452F (S-M)-LOGO, 1452FQ (S-M), 1452FQ (S-M)-LOGO, 1452F-XXL, 1452F-XXL-LOGO, 1452FQ-XXL, 1452FQ-XXL-LOGO, 1452-XXL, 1452-XXL-LOGO, 1452Q-XXL, 1452Q-XXL-LOGO, 1453F-LOGO, 1453FQ, 1453FQ-LOGO, 1453F-XXL, 1453F-XXL-LOGO, 1453FQ-XXL, 1453FQ-XXL-LOGO, 1454F-LOGO, 1454FQ, 1454FQ-LOGO, 1454F-XXL, 1454F-XXL-LOGO, 1454FQ-XXL, 1454FQ-XXL-LOGO, 1410-XXL, 1410-XXL-LOGO, 1410Q-XXL, 1410Q-XXL-LOGO, 1411-XXL, 1411-XXL-LOGO, 1411Q-XXL, 1411Q-XXL-LOGO, 1450-XXL, 1450-XXL-LOGO, 1450Q-XXL, 1450Q-XXL-LOGO, 1451-XXL, 1451-XXL-LOGO, 1451Q-XXL, 14510-XXL-LOGO, 1410F, 1411F, 1450F, 1451F, 1410F-LOGO, 1410FO, 1410FO-LOGO, 1411F-LOGO, 1411FQ, 1411FQ-LOGO, 1450F-LOGO, 1450FQ, 1450FQ-LOGO, 1451F-LOGO, 1451FQ, 1451FQ-LOGO, 1410F 2XL, 1410F-XXL, 1410FQ-XXL, 1410FQ-XXL-LOGO, 1411F-XXL, 1411F-XXL-LOGO, 1411FQ-XXL, 1411FQ-XXL-LOGO, 1450F-XXL, 1450F-XXL-LOGO, 1450FQ-XXL, 1450FQ-XXL-LOGO, 1451F-XXL, 1451F-XXL-LOGO, 1451FO-XXL, 1451FO-XXL-LOGO, 1410E, 1411E, 1450E, 1451E, 1453FE, 1454FE, 1410E-LOGO, 1410EQ, 1410EQ-LOGO, 1411E-LOGO, 1411EQ, 1411EQ-LOGO, 1450E-LOGO, 1450EQ, 1450EQ-LOGO, 1451E-LOGO, 1451EQ, 1451EQ-LOGO, 1452E (L-XL), 1452E (L-XL)-LOGO, 1452EQ (L-XL), 1452EQ (L-XL)-LOGO, 1452E (S-M), 1452E (S-M)-LOGO, 1452EQ (S-M), 1452EQ (S-M)-LOGO, 1452FE (L-XL), 1452FE (L-XL)-LOGO, 1452FEQ (L-XL), 1452FEQ (L-XL)-LOGO, 1452FE (S-M), 1452FE (S-M)-LOGO, 1452FEQ (S-M), 1452FEQ (S-M)-LOGO, 1452FE-XXL, 1452FE-XXL-LOGO, 1452FEQ-XXL, 1452FEQ-XXL-LOGO, 1452E-XXL, 1452E-XXL-LOGO, 1452EQ-XXL, 1452EQ-XXL-LOGO, 1453, 1453FE-LOGO, 1453FEO, 1453FEO-LOGO, 1453FE-XXL, 1453FE-XXL-LOGO, 1453FEO-XXL, 1453FEO-XXL-LOGO, 1454, 1454FE-LOGO, 1454FEQ, 1454FEQ-LOGO, 1454FE-XXL, 1454FE-XXL-LOGO, 1454FEQ-XXL, 1454FEQ-XXL-LOGO, 1410E-XXL, 1410E-XXL-LOGO, 1410EQ-XXL, 1410EQ-XXL-LOGO, 1411EQ-XXL, 1411E-XXL, 1411EQ-XXL-LOGO, 1450E-XXL, 1450E-XXL-LOGO, 1450EQ-XXL, 1450EQ-XXL-LOGO, 1451E-XXL, 1451E-XXL-LOGO, 1451EO-XXL, 1451EO-XXL-LOGO, 1410FE, 1411FE, 1450FE, 1451FE, 1410FE-LOGO, 1410FEQ, 1410FEQ-LOGO, 1411FE-LOGO, 1411FEQ, 1411FEQ-LOGO, 1450FE-LOGO, 1450FEQ, 1450FEQ-LOGO, 1451FE-LOGO, 1451FEQ, 1451FEQ-LOGO, 1410FE-XXL, 1410FEQ-XXL, 1410FEQ-XXL-LOGO, 1411FE-XXL, 1411FE-XXL-LOGO, 1411FEQ-XXL, 1411FEQ-XXL-LOGO, 1450FE-XXL, 1450FE-XXL-LOGO, 1450FEQ-XXL, 1450FEQ-XXL-LOGO, 1451FE-XXL, 1451FE-XXL-LOGO, 1451FEQ-XXL, 1451FEQ-XXL XXL-LOGO, 1413F, 1413FE, 1413FEQ, 1413FQ, 1413F-LOGO, 1413FE-LOGO, 1413FEQ-LOGO, 1413FQ-LOGO, 1413F-XXL, 1413FE-XXL, 1413FEQ-XXL, 1413FQ-XXL, 1413F-XXL-LOGO, 1413FE-XXL-LOGO, 1413FEO-XXL-LOGO, 1413FO-XXL-LOGO, 1414F, 1414FE, 1414FEO, 1414FO, 1414F-LOGO, 1414FE-LOGO, 1414FEQ-LOGO, 1414FQ-LOGO, 1414F-XXL, 1414FE-XXL, 1414FEQ-XXL, 1414FQ-XXL, 1414F-XXL-LOGO, 1414FE-XXL-LOGO, 1414FQ-XXL-LOGO, 1414FQ-XXL-LOGO, 1412 (S-M), 1412F (S-M), 1412E (S-M), 1412Q (S-M), 1412FE (S-M), 1412FEQ (S-M), 1412EQ (S-M), 1412FQ (S-M), 1412-LOGO (S-M), 1412F-LOGO (S-M), 1412E-LOGO (S-M), 1412O-LOGO (S-M), 1412FE-LOGO (S-M), 1412FEO-LOGO (S-M) M), 1412EQ-LOGO (S-M), 1412FQ-LOGO (S-M), 1412 (L-XL), 1412F (L-XL), 1412E (L-XL), 1412Q (L-XL), 1412FE (L-XL), 1412FEQ (L-XL), 1412EQ (L-XL), 1412FQ (L-XL), 1412-LOGO (L-XL), 1412F-LOGO (L-XL), 1412E-LOGO (L-XL), 1412Q-LOGO (L-XL), 1412FE-LOGO (L-XL), 1412FQ-LOGO (L-XL), 1412EQ-LOGO (L-XL), 1412FQ-LOGO (L-XL), 1412-XXL, 1412F-XXL, 1412E-XXL, 1412Q-XXL, 1412FE-XXL, 1412FEQ-XXL, 1412EQ-XXL, 1412FQ-XXL, 1412-LOGO-XXL, 1412F-LOGO-XXL, 1412E-LOGO-XXL, 1412Q-LOGO-XXL, 1412FE-LOGO-XXL, 1412FEQ-LOGO-XXL, 1412EQ-LOGO-XXL, 1412FQ-LOGO-XXL, SWSW1311-S, SWSW1311-M, SWSW1311-L, SWSW1311-XL

 $\label{logo} \textbf{Hoisting/Riding Harness} - 1055-S, 1055-S-LOGO, 1055-M, 1055-M-LOGO, 1055-L, 1055-L-LOGO, 1055-XL, 1055-XL-LOGO, 1055-XXL-LOGO, 1055-XXL-LOGO, 1055-XXL-LOGO, 1055-XXXL-LOGO, 1055-XXL-LOGO, 1055-XXL-LOGO, 1055-XXL-LOGO, 1055-XXL-LOGO, 105$ 

**Wind Energy** – 1490 (L-XL), 1490 (L-XL)-LOGO, 1490 (S-M), 1490 (S-M)-LOGO, 1490, 1490-XXL, 1490-XXL, LOGO, 1492-L, 1492-L-OGO, 1492-M, 1492-M-LOGO, 1492-S, 1492-S-LOGO, 1492-XL, 1492-XL-LOGO, 1492-XXL, 1492-XXL-LOGO

**3-In-One** – 7610, 7610-XXL, 7610EV, 7610EV-XXL **Vest (Hi-Viz)** - 1808 (S-M), 1808 (L-XL), 1808 (XXL) **Electric & Utility** - U1620 **Coated Web** – 10955, 10955-XXL **Iron Flex** – 7211-S, 7211-M, 7211-L, 7211-XL, 7211-XXL

## Product Warranty, Limited Remedy, and Limitation of Liability

**WARRANTY:** THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Equipment offered by 3M is warranted against factory defects in workmanship and materials for a period of one year from date of installation or first use by the original owner.

**LIMITED REMEDY:** Upon notice in writing, 3M will repair or replace all defective items at 3M's sole discretion. 3M reserves the right to require that the defective item be returned to its plant for inspection before determining the appropriate course of action. Warranty does not cover equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of 3M. 3M shall be the sole judge of product condition and warranty options. This warranty applies only to original purchaser and is the only warranty applicable to this product. Please contact 3M technical service department at 800-243-4630 for assistance.

**LIMITATION OF LIABILITY:** IN NO EVENT WILL 3M BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.

## **3M Occupational Health and Environmental Safety Division**

3M Center Building 235-2W-70 Saint Paul, MN 55144-1000 USA Technical Assistance: 800-243-4630 in U.S. 800-267-4414 in Canada www.3M.com/FallProtection www.3M.com/PPESafety



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IM-0003D (03-2012) 34-8709-6736-0