

**3M**



Fall Protection  
for Tools

# Any tool, at the ready

3M™ DBI-SALA®  
Fall Protection for Tools  
**Pocket Reference  
Guide**



# 3M™ DBI-SALA® Fall Protection for Tools Product Catalog



**3M**

**DBI  
SALA**

Fall Protection  
for Tools

3M™ DBI-SALA®  
Fall Protection for Tools  
Product Catalog

Everything  
you need to

**stop  
the  
drop.**

## Download/Request a Printed Catalog

Download the product catalog at [3M.com/FallProtection](http://3M.com/FallProtection) or to request a printed catalog, contact your local Sales Representative or 3M Fall Protection Customer Service department today.



Fall Protection  
for Tools

# The science of fighting gravity.

Protecting workers takes more than just keeping them from falling. Their tools also need to be protected at height.

That's why for over eight years, we've been pioneering an innovative line of products and solutions to help prevent dropped tools. From construction sites to oil rigs, we help make work environments safer and more productive by protecting workers from hazards that can result in personal injury, equipment damage and tool loss.

## Certified and Tested

Our on-site ISO 17025 accredited lab allows us to simulate heat, cold, moisture, corrosion and abrasion—the challenges you face every day. We conduct dynamic and static strength tests, both in the field and in our ISO 9001 certified manufacturing facilities, ensuring you receive high quality, reliable fall protection for tools.

### For product inquiries:

[3M.com/DroppedObjectsPrevention](https://www.3m.com/DroppedObjectsPrevention)

800-328-6146

[3mfallprotection@mmm.com](mailto:3mfallprotection@mmm.com)

# IMPORTANT

## Notice

- All procedures shown in this document are for 3M™ DBI-SALA® Fall Protection for Tools products only.
- All attachment points should be connected to a 3M™ DBI-SALA® extension or tool tether.
- Ensure operators are assessed for competency in using all equipment and tools.
- Be careful working around rotating and moving equipment.
- Ensure operators have read and understood product information and warning labels for all tool tethers and attachment points.
- Ensure all equipment and tools are regularly maintained and checked before each use for defects and deterioration.
- Ensure damaged, worn, or defective equipment, tools, tool tethers, and attachment points are immediately removed from service.
- Never modify a tool from the manufacturer's specification.

## Inspect Before Use

Visual inspection is vital to safely using safety solutions. Inspect the entire surface of the product by starting on one side and working your way to the opposite, carefully rotating the product as you visually inspect for damage or wear that might affect the usefulness and dependability of the tool tether, attachment point or the tool.

## After Use

After use, clean the equipment of dirt, corrosives, or contaminants and store in a clean and dry environment, free from fumes or corrosive elements. Taking care of your safety equipment will ensure it works effectively and will extend its service life.

## Cleaning Nylon & Polyester

- Clean off the surface dirt with a water-dampened wipe.
- Dip the wipe in a mild solution of water, soap, or detergent; work it up into a thick lather; and clean the item.
- Wipe with a clean cloth and hang to dry away from excessive heat, steam, or sunlight.

## In Case of a Dropped Tool

- If a tool is dropped and/or load is forced onto the connection point and/or the tool tether, remove affected parts from service and replace immediately.
- Any impacted tool or tool tether should be immediately taken out of service.
- All incidents should be reported to your safety coordinator.

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# Quick Wrap Tape II & D-Rings



1500001



1500003



1500005



1500007

## D-Rings

Part #	Dimensions	Load Rating	Qty/Case
1500001	0.5" x 2.25" (12.70 mm x 57.15 mm)	2 lbs. (0.9 kg)	10
1500003	0.5" x 2.25" (12.70 mm x 57.15 mm)	2 lbs. (0.9 kg)	10
1500005*	0.5" x 2.25" (12.70 mm x 57.15 mm)	2 lbs. (0.9 kg)	10
1500007	1" x 3.5" (25.40 mm x 88.90 mm)	5 lbs. (2.3 kg)	10

\* Non-metallic

Also available in cases of 50 and 100. See product catalog for more information.



1500168



1500171



1500174

## Quick Wrap Tape II

Part #	Length	Qty/Case
1500168	1" x 108" (2.54 cm x 274 cm)	1
1500171	1" x 216" (2.54 cm x 548.6 cm)	1
1500174	1" x 108" (2.54 cm x 274 cm)	1

Also available in cases of 10 and case quantity. See product catalog for more information.

### ✓ When to use D-Rings and Quick Wrap Tape II

- For tools weighing up to 5 lbs. (2.3 kg) or 2 lbs. (0.9 kg) depending on the D-Ring.
- When a non-metallic attachment point is needed for tools up to 2 lbs. (0.9 kg).
- When Quick Rings, Quick Spins, and D-Ring Cord Attachments won't work. Many tools do not have pre-drilled holes for Quick Rings, and lack handles that a Quick Spin will fit.

### ✗ When NOT to use D-Rings and Quick Wrap Tape II

- When a tool is over 5 lbs. (2.3 kg) or 2 lbs. (0.9 kg) depending on the D-Ring.
- When a D-Ring will interfere with the safe working condition of the tool.

## Quick Wrap Tape II & D-Rings

### Quick Wrap Tape II & D-Ring Examples



# Quick Wrap Tape II & D-Rings



Figure 1



Figure 2



Figure 3

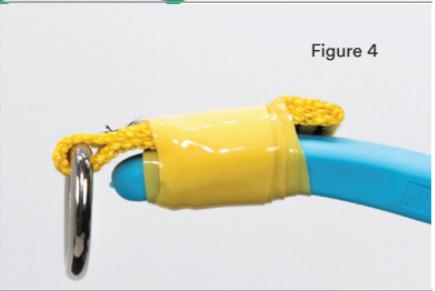


Figure 4



Figure 5

# Quick Wrap Tape II & D-Rings

## Usage Instructions

### **Installation: 2 lbs. (0.9 kg) D-Ring Models 1500001, 1500003, 1500005 (Figures 1-5):**

**Step 1** Cut off a strip of Quick Wrap Tape II long enough to wrap a minimum of six times around the tool. Remove the plastic liner from the tape. While maintaining moderate tension on tape, install one full wrap around the tool handle approximately 1 inch from the desired location of the D-Ring. Optional installation method: Instead of cutting off a strip of Quick Wrap Tape II before wrapping the tool, the plastic liner can be gradually removed as the tape is wound under tension around the tool. The tape can be cut off after wrapping is complete.

**Step 2** Place the D-Ring with the tab facing up on the first wrap of tape. (Figure 2)

**Step 3** While maintaining moderate tension on the tape, wrap five wraps in line with each other over the D-Ring. (Figure 3)

**Step 4** After the connection to the tool is complete (Figure 4), test the connection to confirm secure installation (Figure 5).

### **Installation: 5 lbs. (2.3 kg) D-Ring Model 1500007 (Figures 1-5):**

**Step 1** Cut a strip of Quick Wrap Tape II long enough to wrap a minimum of 11 times around the tool. Remove the plastic liner from the tape. While maintaining moderate tension on tape, install one full wrap around the tool handle approximately 2-3 inches from the desired location of the D-Ring. Optional installation method: Instead of cutting off a strip of Quick Wrap Tape II before wrapping the tool, the plastic liner can be gradually removed as the tape is wound under tension around the tool. The tape can be cut off after wrapping is complete.

**Step 2** Place the D-Ring with the tab facing up on the first wrap of tape. (Figure 2)

**Step 3** While maintaining moderate tension on tape, wrap the first five wraps in line with each other over the D-Ring. Use a sixth wrap to cross over the installed tape and follow with four more wraps over the D-Ring tab adjacent to the first five wraps. (Figure 3)

**Step 4** After the connection to the tool is complete (Figure 4), test the connection to confirm secure installation (Figure 5).

**After Installation: 3M recommends using 3M Fall Protection for Tools Heat Shrink to extend the life of the Quick Wrap Tape II connection. Heat Shrink provides additional protection from abrasives and harsh environments. 3M Heat Shrink is sold separately.\***

*\* Never use Heat Shrink without first applying Quick Wrap Tape II. Heat Shrink is not a replacement for Quick Wrap Tape II, it only should be used to help protect the tape.*

## Tool Cinch Attachments



1500011



1500013



1500015



1500017

## Tool Cinch Attachments

Part #	Load Rating	Qty/Case
1500011	35 lbs. (15.9 kg)	1
1500013	35 lbs. (15.9 kg)	1
1500015	35 lbs. (15.9 kg)	1
1500017	80 lbs. (36.3 kg)	1

*Also available in case of 10. See product catalog for more information.*

### ✓ When to use a Tool Cinch

- Tools weighing up to 35 lbs. (15.9 kg) and 80 lbs. (36.3 kg) unless otherwise stated.
- On difficult to tether tools such as pinch bars, torque wrenches, clamps, and many closed handled tools.

### ✗ When NOT to use Tool Cinch

- Do not use a Tool Cinch on tools that exceed the Tool Cinches load rating.
- When a Tool Cinch will interfere with the safe working condition of the tool.

## Tool Cinch Examples



Example 1



Example 2



Example 3

## Tool Cinch

### Usage Instructions

**Installation: Cinch attachments (1500013, 1500015, 1500017):**

**If using a tool cinch with wings, use 3M Quick Wrap Tape II to hold the tool cinch wings in place. Use the “2 lbs. (0.9 kg)” installation method described below for each cinch wing.**

**Step 1** Cut off a strip of Quick Wrap Tape II long enough to wrap a minimum of six times around the tool. Remove the plastic liner from the tape. While maintaining moderate tension on tape, install one full wrap around the tool handle approximately 1 inch from the desired location of the tool cinch. Optional installation method: Instead of cutting off a strip of Quick Wrap Tape II before wrapping the tool, the plastic liner can be gradually removed as the tape is wound under tension around the tool. The tape can be cut off after wrapping is complete.

**Step 2** Place the tool cinch wings with the tab facing up on the first wrap of tape. (Figure 1)

**Step 3** While maintaining moderate tension on the tape, wrap five wraps in line with each other over the tool cinch wings.

**Step 4** After the connection to the tool is complete (Figure 2), test the connection to confirm secure installation.

# Tool Cinch

Figure 1



Figure 2



# Heat Shrink



## Heat Shrink

Part #	Dimensions	Qty/Case
1500019	0.75" x 1.75" (1.9 cm x 4.5 cm)	25
1500020	1" x 1.75" (2.5 cm x 4.5 cm)	25
1500021	1.5" x 2" (3.8 cm x 7.6 cm)	25
1500022	2" x 4" (5.1 cm x 10.2 cm)	10
1500023	3" x 4" (7.6 cm x 10.2 cm)	10

### ✓ When to use Heat Shrink

- Used on top of Quick Wrap Tape II (Pg. 6) to create a more abrasion resistant attachment point.

### ✗ When NOT to use Heat Shrink

- In temperatures exceeding 130 degrees Fahrenheit (54.4 Celsius).
- Heat Shrink is not a replacement for Quick Wrap Tape II, it only should be used to help protect the tape. Never use Heat Shrink without first applying Quick Wrap Tape II.

## Heat Shrink Examples



# Heat Shrink

Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



## Usage Instructions

**Step 1** Make sure the tool is clean and free of debris. If there is a detachable handle, ensure the handle is secure. If the handle is loose, detach before applying Heat Shrink.

**Step 2** Attach a D-Ring using Quick Wrap Tape II to the tool, as shown on the left (Figure 1).

**Step 3** Slide Heat Shrink over the D-Ring and Quick Wrap Tape II. Ensure that the Heat Shrink covers as much of the D-Ring as possible without covering the ring itself (Figure 2). NEVER use Heat Shrink without first applying Quick Wrap Tape II.

**Step 4** Wearing heat resistant gloves, use a Heat Gun to evenly apply heat to the Heat Shrink being careful not to burn the webbing of the D-Ring or Heat Shrink itself. Allow the Heat Shrink to completely shrink around the tool and D-Ring (Figure 3). Do not apply any adhesives to Heat Shrink.

**Step 5** Let cool approximately five minutes before using. Refrain from pulling or tugging on the connection until completely cooled (Figure 4).

**Step 6** Once the connection is complete, test the connection to ensure proper installation has taken place (Figure 5).

**NOTE: Remember to always inspect the connection prior to each use for damage or irregularities that might affect the connection. Apply approximately 5 lbs. (2.3 kg) of force when inspecting.**

# Quick Spins



## Quick Spins

Part #	Diameter	Load Rating	Qty/Case
1500027	0.6" (1.5 cm)	1 lb. (0.5 kg)	10
1500028	0.8" (2 cm)	1 lb. (0.5 kg)	10
1500029	1" (2.5 cm)	1 lb. (0.5 kg)	10
1500030	1.2" (3.1 cm)	1 lb. (0.5 kg)	10
1500031	0.3" (0.8 cm)	—	10
1500032*	0.3" (0.8 cm)	—	10
1500033	0.5" (1.3 cm)	—	10
1500034*	0.5" (1.3 cm)	—	10

\*with coil tether

### ✓ When to use Quick Spins

- On tools under 1 lb. (0.5 kg) where the Quick Spin will fit tightly on a handle.
- When a non-metallic attachment point is necessary.

### ✗ When NOT to use Quick Spins

- Tools over 1 lb. (0.5 kg).
- Do not use a Quick Spin if a snug fit cannot be secured.

## Quick Spin Examples



## Quick Spins

Figure 1



Figure 2



Figure 3



### Usage Instructions

**Step 1** Identify a Quick Spin Adaptor that will properly fit the handle of the tool (Figure 1).

**Step 2** Push and twist the Quick Spin onto the tool. Some force may be necessary to create a snug fit (Figure 2).

**Step 3** Ensure that the Quick Spin is firmly in place before use (Figure 3).

**IMPORTANT: Inspect before use. Never connect to anything over 1 lb. (0.5 kg).**

# D-Ring Cord

## D-Ring Cord

Part #	Load Rating	Qty/Case
1500009	5 lbs. (2.3 kg)	10



### ✓ When to use a D-Ring Cord Attachment

- For tools weighing up to 5 lbs. (2.3 kg).
- For creating quick attachment points on a variety of tools.
- On tools with closed handles, or with pre-drilled holes.

### ✗ When NOT to a D-Ring Cord Attachment

- For tools weighing over 5 lbs. (2.3 kg).
- When a non-metallic attachment point is needed, use a Quick Spin (Pg. 18), or non-metallic D-Ring (Pg. 6).
- When the attachment will interfere with the safe working condition of the tool.



## D-Ring Cord Examples



## D-Ring Cord

### Usage Instructions (Closed Handled Tools)

**Step 1** Ensure that cinching the D-Ring Cord to the handle of your tool will not interfere with the safe working condition of the tool.

**Step 2** Pass the cord end of the D-Ring Cord through the handle of the tool (Figure 1).

**Step 3** Pass the Ring side of the D-Ring Cord through the loop of the Cord (Figure 2).

**Step 4** Pull tightly to cinch and create a secure connection (Figure 3).

### Usage Instructions (Pre-drilled Holes)

**Step 1** Ensure that cinching the D-Ring Cord to the tool will not interfere with the safe working condition of the tool.

**Step 2** Pass the cord end of the D-Ring Cord through the pre-drilled hole in the tool (Figure 4).

**Step 3** Pass the Ring side of the D-Ring Cord through the loop of the Cord (Figure 5).

**Step 4** Pull tightly to cinch and create a secure connection (Figure 6).

## D-Ring Cord

### Closed Handled Tools

Figure 1



Figure 2



Figure 3



### Pre-drilled Holes

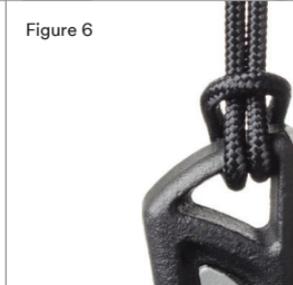
Figure 4



Figure 5



Figure 6



# Quick Rings



## Quick Rings

Part #	Diameter	Load Rating	Qty/Case
1500024	0.75" (1.9 cm)	2 lbs. (0.9 kg)	25
1500025	1" (2.5 cm)	2 lbs. (0.9 kg)	25
1500026	1.5" (3.8 cm)	2 lbs. (0.9 kg)	25

### ✓ When to use Quick Rings

- When there are pre-drilled holes in a tool, or when a quick ring can be fitted around a tool in such a way where it cannot slide off. Never modify a tool in a way that would void the manufacturer's warranty.
- When a tool weighs less than 2 lbs. (0.9 kg).

### ✗ When NOT to use Quick Rings

- When a tool weighs over 2 lbs. (0.9 kg).
- When there is no pre-drilled hole that a Quick Ring can be fitted through, or when a Quick Ring cannot be fitted onto a tool in such a way that the Quick Ring cannot slide off.
- When a non-metallic attachment point is needed, use a Quick Spin (Pg. 18), or non-metallic D-Ring (Pg. 6).

## Quick Ring Examples

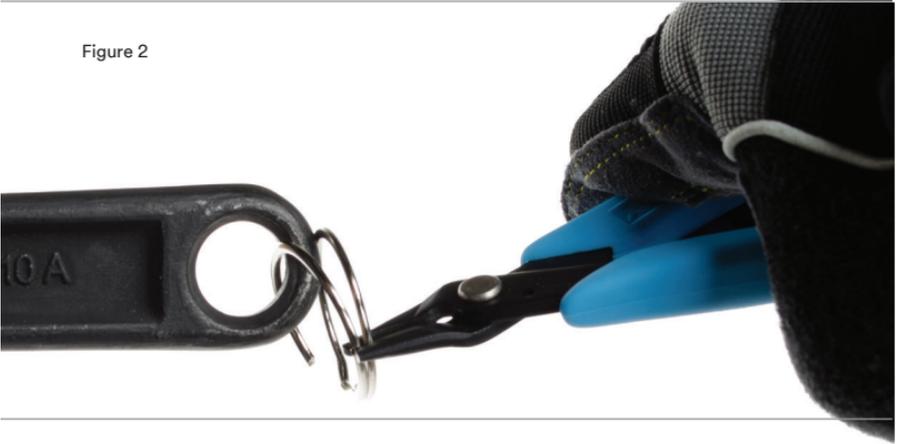


# Quick Rings

Figure 1



Figure 2



## Usage Instructions

**Step 1** Use split ring pliers to separate the Quick Ring so it can be threaded through an attachment point (Figure 1).

**Step 2** Begin threading the Quick Ring through the attachment point with the pliers. Continue to thread the tool through by hand if necessary (Figure 2).

**Step 3** After installation, check for damage of tool or Quick Ring. If either the tool or Quick Ring is damaged, replace that component.

**IMPORTANT: Inspect before use. Never connect to anything over 2 lb. (0.9 kg).**



## Tool Tethers



## Bungee Tethers

Part #	Load Rating	Qty/Case
1500047*	15 lbs. (6.8 kg)	1
1500049	35 lbs. (15.9 kg)	1

Also available in case of \*10. See product catalog for more information.



1500059



1500060



1500065



1500067



1500159



1500178

## Coil Tethers

Part #	Load Rating	Qty/Case
1500059	2 lbs. (0.9 kg)	10
1500060	2 lbs. (0.9 kg)	10
1500065*	2 lbs. (0.9 kg)	1
1500067*	5 lbs. (2.3 kg)	1
1500159*	5 lbs. (2.3 kg)	1
1500178**	4 lbs. (1.8 kg)	10

Also available in case of \*10 and case of \*\*100. See product catalog for more information.



1500069



1500156

## Retractors

Part #	Load Rating	Qty/Case
1500069	1.5 lbs. (0.7 kg)	1
1500156	5 lbs. (2.3 kg)	1



## Trigger to Trigger Tethers

Part #	Load Rating	Length	Qty/Case
1500053*	10 lbs. (4.5 kg)	12" (30.48 cm)	1
1500055*	10 lbs. (4.5 kg)	24" (60.96 cm)	1
1500057*	10 lbs. (4.5 kg)	36" (91.44 cm)	1

*Also available in case of \*10. See product catalog for more information.*



1500050



1500051



1500052

## Medium and Heavy Duty Tool Tethers

Part #	Load Rating	Length	Qty/Case
1500050	35 lbs. (15.9 kg)	72" (182.88 cm)	1
1500051	80 lbs. (36.3 kg)	72" (182.88 cm)	1
1500052	80 lbs. (36.3 kg)	72" (182.88 cm)	1

## Wristbands & Battery Holster



Pullaway Wristband



Pullaway Wristband Slim

### Pullaway Wristbands

Part #	Size	Load Rating	Profile	Qty/Case
1500070*	Small	5 lbs. (2.3 kg)	Standard	1
1500072*	Medium	5 lbs. (2.3 kg)	Standard	1
1500074*	Large	5 lbs. (2.3 kg)	Standard	1
1500076*	Small	5 lbs. (2.3 kg)	Slim	1
1500078*	Medium	5 lbs. (2.3 kg)	Slim	1
1500080*	Large	5 lbs. (2.3 kg)	Slim	1

Also available in case of \*10. See product catalog for more information.



1500082



1500084



1500086

### Adjustable Wristbands

Part #	Load Rating	Qty/Case
1500082*	5 lbs. (2.3 kg)	1
1500084*	5 lbs. (2.3 kg)	1
1500086*	1.5 lbs. (0.7 kg)	1

Also available in case of \*10. See product catalog for more information.

### Battery Holster Sleeve

Unique sleeve design conforms to the size of virtually any drill battery.

- Sleeve is cinched to the drill, allowing the drill to be tethered off while being used at height.



1500090

Part #	Load Rating	Qty/Case
1500090	10 lbs. (4.5 kg)	1

## Harness Adapter

Allows you to add an attachment point for tool tethers anywhere on your harness. 5 lbs. (2.3 kg) capacity.



1500161



Part #	Load Rating	Qty/Case
1500161	5 lbs. (2.3 kg)	1



1500111  
Comfort Tool Belt



1500113  
Utility Tool Belt

## Tool Belts

- Also available in several sizes. See product catalog for more information.

## Tool Belts

Part #	Waist Size	Qty/Case
1500111	36 in.-44 in. (91 cm-112 cm)	1
1500113	28 in.-46 in. (71 cm-117 cm)	1



1500115



1500117

1500115 is used for tying off tools from a belt, while 1500117 is used for staging tools.

## Belt Loops

Part #	Load Rating	Qty/Case
1500115*	5 lbs. (2.3 kg)	1
1500117*	5 lbs. (2.3 kg)	1

*Also available in case of \*10. See product catalog for more information.*

## Belt & Harness Holsters



1500088



1500091



1500096



1500098



1500102



1500104



1500105



1500107



1500109



1500165

## Tool Holsters

Part #	Product Name	Retractors Included	Attachment	Qty/Case
1500088	Adjustable Radio Holster	None	Belt or Harness	1
1500091	Spray Can / Bottle Holster	None	N/A	1
1500093	Hammer Holster	None	Belt	1
1500096	Scaffold Wrench Holster with Retractor	1	Belt	1
1500098	Tape Measure Retractor Holster	1	Belt	1
1500099	Medium Tape Measure Sleeve	None	N/A	1
1500100	Tape Measure Holster with Retractor and Medium Sleeve Combo	1	Belt	1
1500101	Single Tool Belt Holster	None	Belt	1
1500102	Single Tool Belt Holster with Retractor	1	Belt	1
1500103	Single Tool Harness Holster	None	Harness	1
1500104	Single Tool Harness Holster with Retractor	1	Harness	1
1500105	Extra-Deep Single Tool Belt Holster	None	Belt	1
1500106	Dual Tool Belt Holster	None	Belt	1
1500107	Dual Tool Belt Holster with Retractors	2	Belt	1
1500108	Dual Tool Harness Holster	None	Harness	1
1500109	Dual Tool Harness Holster with Retractors	2	Harness	1
1500165	Large Tape Measure Sleeve	None	N/A	1
1500166	Tape Measure Holster with Retractor and Large Sleeve Combo	1	Belt	1

## Tool Pouches



### Small Parts Pouches

Part #	Product Name	Qty/Case
1500119	Canvas Black	1
1500120	Canvas Camo Tan	1
1500121	Canvas Orange	1
1500122	Vinyl Yellow	1
1500123	Extra Deep Canvas Black	1

### Utility Pouch



Part #	Product Name	Qty/Case
1500130	Utility Pouch with Zipper Closure	1
1500132	Utility Pouch	1

### Inspection Pouch



- Designed for the safe transport and use of most multimeters, air monitors, and other portable testing devices.

Part #	Product Name	Qty/Case
1500131	Inspection Pouch	1

### Tool Pouches



- Available in several sizes and variants. See product catalog for more information.

Part #	Product Name	Qty/Case
1500124	Tool Pouch	1

# Safe Buckets



1500134



1500140

## Safe Buckets

Part #	Load Rating	Closure System	Qty/Case
1500133	100 lbs. (45.4 kg)	Drawstring	1
1500134	100 lbs. (45.4 kg)	Hook and Loop	1
1500135	100 lbs. (45.4 kg)	Hook and Loop	1
1500139	250 lbs. (113.4 kg)	Drawstring	1
1500140	250 lbs. (113.4 kg)	Hook and Loop	1

## Hard-Body Safe Bucket Insert

Converts a standard soft-body Safe Bucket into a hard-body Safe Bucket.

Part #	Product Name	Qty/Case
1500141	Hard-Body Safe Bucket Insert	1



## Long Safe Buckets

Part #	Load Rating	Length	Qty/Case
1500136	100 lbs. (45.4 kg)	48" (121.9 cm)	1
1500137	100 lbs. (45.4 kg)	72" (182.9 cm)	1
1500138	100 lbs. (45.4 kg)	120" (304.8 cm)	1

# Fall Protection for Tools Awareness Resources

## 9701406

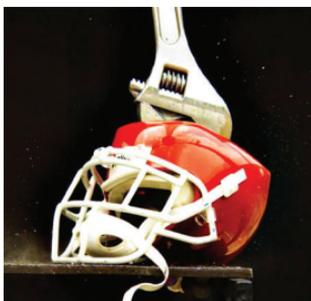
### Fall Protection for Tools Product catalog

Learn how to make virtually any tool ready for tethering with this included reference guide.



## Looping Awareness Videos

Get immediate access to high-definition videos that can be used in training and awareness materials at your work location.



 <http://bit.ly/FPFTVideos>

## 9701413

### Common Tool Attachment Points Poster

Discover the most common places to equip your gear with 3M™ DBI-SALA® Fall Protection for Tools. Visualize the available attachment points and their associated weight ratings.



## 9701414

### Hard Hat Stickers

Make safety awareness efforts stick with these Stop the Drop hard hat stickers.



# Direct Impact

Impact of an 8.3 lb. (3.6 kg) dropped wrench\*

Drop Height		Speed		Impact Force	
Feet	Meters	MPH	KPH	Lbs.	Newtons
5	1.5	12	19	166	738
10	3	17	27	332	1477
25	7.6	27	43	830	3692
50	15.2	39	63	1660	7384
100	30.5	55	88	3320	14768
200	61	77	124	5540	29536
300	91	95	152	9960	44304
400	122	109	175	13280	59072
500	152	122	196	16600	73840

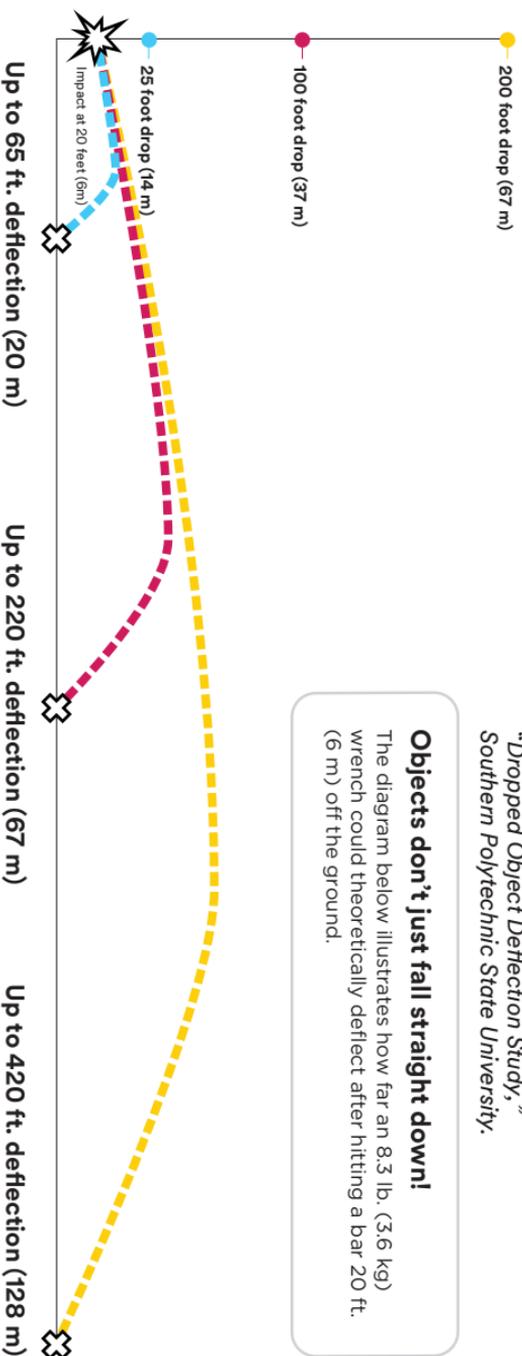
\*Assumes a 3 in. (7.6 cm) deceleration distance for purposes of this calculation of impact force.

# Falling Object Deflections

*"Dropped Object Deflection Study,"  
Southern Polytechnic State University.*

## **Objects don't just fall straight down!**

The diagram below illustrates how far an 8.3 lb. (3.6 kg) wrench could theoretically deflect after hitting a bar 20 ft. (6 m) off the ground.





**3M Fall Protection Business**

Personal Safety Division

3833 SALA Way

Red Wing, MN 55066 USA

Phone 800-328-6146

Email [3Mfallprotection@mmm.com](mailto:3Mfallprotection@mmm.com)

Web [3M.com/DroppedObjectsPrevention](http://3M.com/DroppedObjectsPrevention)

Form: 9701411 Rev E

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