

# **User Instructions**

# V-SHOCK® EDGE Self Retracting Lifeline (SRL)

**Fall Protection** 



Order No.: 10228234 (EN), 10236163/01 (Online)

Print Spec: 10000005389 (EO)

CR: 800000058208

MSA**safety**.com

# 1 Labels and Icons



#### V-SHOCK EDGE SRLs

Leading Edge





Green Housing (Leading Edge)



Leading Edge Icon



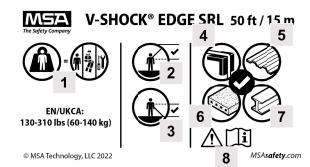
Scannable RFID

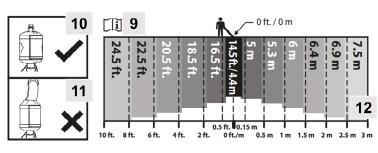


Serial Number



Labels located beneath flap indicated by "refer to instruction manual" icon.





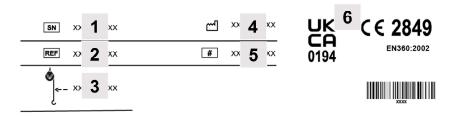
1	Capacity including user, clothing, and tools.	5	Tested for use over corrugated steel edge. <sup>1</sup>	9	Refer to instruction manual.
2	Tie off above D-ring permitted.	6	Tested for use over concrete edge. <sup>1</sup>	10	Load indicator <b>NOT</b> deployed.
3	Tie off below D-ring permitted.	7	Tested for use over steel edge. <sup>1</sup>	11	Load indicator deployed, <b>DO NOT USE.</b>
4	Tested for use over an edge. <sup>1</sup>	8	WARNING! Read and understand instruction manual before use.	12	Fall clearance chart. <sup>2</sup>

<sup>1 -</sup> See Section 5.3 Leading Edge Installation and Use for details and limitations.

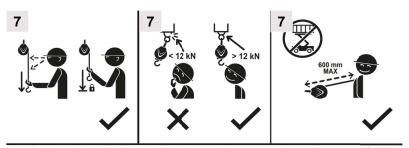
<sup>2 -</sup> See Section 6 Fall Clearance Charts for details.

# 1.1 Product Details and Warnings

# V-SHOCK EDGE SRL Labels



Product of Mexico



Suitable for vertical or horizontal use. Avoid Intentionally loading over an edge / Convient pour me utilisation verticals of horizontal e. Evitez toute service and the conviction of the convi

1	SN	Serial number	5	# Model number
2	REF	Part Number	6	Notified bodies
3	<b>\\ -</b>	Line Material, Width, Length	7	Product use
4	쎈	Date of manufacture (mm/yy)	8	Product warning

# 2 Safety Regulations

# **WARNING!**

#### **User Requirements**

- Users of Self Retracting Lifelines (SRLs) shall be medically fit and suitably trained.
- SRLs shall not be used by pregnant women, minors or those under the influence of alcohol or drugs.
- For single user only, within the weight range 130–310 lbs (60–140 kg).

#### Anchor Requirements/Swing Fall/Fall Clearance

- The anchorage must be capable of supporting the required load. See Section 3 Product Specification for details on anchorage strength.
- Ensure that the available fall clearance is equal to or greater than the fall clearance shown in Section 6 Fall Clearance Charts.
- Remove any surface contamination such as, but not limited to concrete, stucco, roofing material, etc. that could accelerate cutting or abrading of attached components.
- For use in accordance with acceptable locations as shown in Section 6 Fall Clearance Charts. The user shall consider any risks posed by swing falls.
- Swing falls can increase fall distance. In overhead applications, work directly under the anchorage. In horizontal
  (leading edge) applications, minimize the horizontal offset. Increasing the horizontal offset will increase the amount
  of swing fall. Always remove obstructions in or adjacent to the fall path. Keep work area free from debris,
  obstructions, trip hazards, spills, or other hazards which could impair the safe operation of the fall protection system.
  For horizontal (leading edge) applications DO NOT use the device unless a qualified person has inspected the
  workplace and determined that the identified swing fall hazards have been eliminated or exposures to them
  prevented.

#### **Product Use**

- SRLs are only to be used for their intended purpose and within their limitations. DO NOT intentionally misuse this product. DO NOT use fall protection equipment for purposes other than those for which it was designed. DO NOT use fall protection equipment for towing, hoisting, or material handling.
- SRLs shall not be altered or added to. No unauthorized repairs, modifications, alterations and/or additions are permitted. Only MSA or persons or entities with written authorization from the manufacturer may make repairs to the SRL.
- RESCUE AND EVACUATION: the user must have a rescue plan and the means at hand to implement it. The plan
  must take into account the equipment and specific training necessary to affect prompt rescue under all foreseeable
  conditions. It is recommended to provide means for user evacuation without assistance of others. This will usually
  reduce the time to get to a safe place and reduce or prevent the risk to rescuers.
- DO NOT rely on feel or sound to verify proper connector engagement. Ensure the connector is closed before use.
- Additional lanyard connectors shall not be added, as this would serve to lengthen the lifeline and increase free fall.
- Anchors shall only be connected to the swivel at the top of the housing. DO NOT connect an anchor to the carrying handle on the housing of the 30 ft (10 m) / 50 ft (15 m) SRL.
- Unsuitable for use on unstable surfaces, fine grain materials or particulate surfaces such as sand or coal, as insufficient speed may prevent lock-on in the event of a fall (possible engulfment hazard).
- DO NOT use where line may be exposed to sharp, jagged or abrasive edges. For leading edge guidance, see Section 5.3 Leading Edge Installation and Use.
- SRLs shall not come into contact with hot surfaces (such as hot pipes), become entangled with moving machinery, or come into contact with electrical hazards (such as high voltage power lines).
- SRLs shall be protected from fire, acids, caustic solutions, or temperatures outside the range -40°F to 130°F (-40°C to 54°C).

- DO NOT leave the SRL installed in environments which could cause damage or deterioration to the product. Refer to the care details in Section 8 Cleaning and Storage and inspection details in Section 7 Pre-Use Checks and Periodic Examinations.
- Instructions shall be retained and provided to all users of SRLs in the language of the destination country, even when
  resold
- DO NOT exceed the maximum fall arrest forces as specified by governing standards or subsystem components.
- Use of combinations of components or subsystems, or both, may affect or interfere with the safe function of the
  components or subsystems. Use only compatible components or subsystems; never add additional length to the
  system.

#### Leading Edge-Specific Product Use

- Use in edge situations should only be as a last resort. Leading edge configurations shall only be used after all other hierarchy of controls, including restraint systems and overhead anchorages, have been exhausted.
- Avoid working where the lifeline will continuously or repeatedly abrade against sharp, jagged, or abrasive edges.
- The V-SHOCK EDGE SRL anchorage point shall be at the user's foot level or above.
- Do not work on the far side of an opening opposite the anchorage point or around corners.
- Leading edge configurations shall only be used in accordance with local regulations.
- In leading edge applications with 0 ft (0 m) setback, ensure that setup does not allow housing unit or top connector to contact leading edge in the event of a fall.

#### Inspection/Removing Product From Service

- SRLs that have arrested a fall or are unable to pass an inspection shall be tagged "UNUSABLE" until it has been
  destroyed and disposed of in accordance with local regulations.
- Due to the nature of some fall arrest events, it is possible for the load indicator to not deploy. In the event that a SRL is subjected to fall arrest forces and the load indicator does not deploy, the SRL still must be removed from service and marked as "UNUSABLE" until it has been destroyed and disposed of in accordance with local regulations.
- If the load indicator is deployed, immediately remove the SRL from service and mark it as "UNUSABLE" until it has been destroyed and disposed of in accordance with local regulations

#### Failure to follow these warnings can result in serious personal injury or death.

# 3 Product Specification

#### **System Requirements**

Component	EN	
Anchorage Connector Standard	EN 795* and/or TS 16415	
Harness Standard	EN 361*	
Connectors Standard	EN 362*	
Retractable Type Fall Arresters	EN 360* and EN 362*	
Structure Strength	12 kN	
* Considering hermonized/designated EN standards		

<sup>\*</sup> Considering harmonized/designated EN standards.

**NOTE:** The product may comply with standards shown. See product label for specific compliance information. Those designated with a certification mark are listed with the corresponding agency as compliant to the applicable standard.

#### **4 Harness Attachment**

CE Approval					
Notified bodies:	Production control phase:				
SATRA Technology Europe Ltd	INSPEC International B.V.				
Bracetown Business Park, Clonee, D15 YN2P,	Beechavenue 54, 1119 PW, Schiphol - Rijk				
Ireland (NB Number 2777)	Netherlands (NB Number 2849)				

UK	CA	Αp	pro	val

Approved body for product certification:	Approved body for site surveillance:	UK representative:		
SATRA Technology Centre Limited	INSPEC International Ltd,	MSA Britain Ltd.		
Wyndham Way, Telford Way,	56 Leslie Hough Way,	Unit 2, Waller Road, Hopton Park		
Kettering, Northamptonshire,	Salford, Greater Manchester,	Devizes, Wiltshire		
NN16 8SD, United Kingdom	M6 6AJ, United Kingdom	SN102JP		
(AB0321)	(AB0194)	UK		

#### **SRL Materials**

Component	Material
Case	Nylon
Drum	Nylon
Pawl, Swivel Assembly, Main Spring	Steel
Lifeline	7/32" (5.5 mm) DIA Galvanized Steel Cable
Connectors	Steel
Energy Absorber	Nylon
Energy Absorber Pouch	Polyester

#### 4 Harness Attachment

# **WARNING!**

DO NOT rely on feel or sound to verify proper connector engagement. Ensure the connector is closed before use.

#### Failure to follow this warning can result in serious personal injury or death.

- Ensure the SRL housing is connected to a suitable anchor point at foot level or above with the appropriate connecting hardware.
- The V-SHOCK EDGE SRL may be connected to an approved full body harness by feeding the snaphook through the back D-ring of the harness.
- If utilizing the V-SHOCK EDGE SRL on a ladder system, the user may connect to an approved full body harness by feeding the snaphook through the front D-ring of the harness.

#### 5 Installation and Use

#### 5.1 Intended Use

SRLs are intended to be used as a connecting element between a full body harness and anchor point. See Section 3

Product Specification. A full body harness is the only acceptable body holding device to be used with a SRL. If supplied as part of a complete system, components shall not be substituted.

# **▲** WARNING!

• SRLs are only to be used for their intended purpose and within their limitations. DO NOT intentionally misuse this product. DO NOT use fall protection equipment for purposes other than those for which it was designed. DO NOT

use fall protection equipment for towing, hoisting, or material handling.

- SRLs shall not be altered or added to. No unauthorized repairs, modifications, alterations and/or additions are
  permitted. Only MSA or persons or entities with written authorization from the manufacturer may make repairs to the
  SRL.
- RESCUE AND EVACUATION: the user must have a rescue plan and the means at hand to implement it. The plan
  must take into account the equipment and specific training necessary to affect prompt rescue under all foreseeable
  conditions. It is recommended to provide means for user evacuation without assistance of others. This will usually
  reduce the time to get to a safe place and reduce or prevent the risk to rescuers.
- DO NOT rely on feel or sound to verify proper snaphook or carabiner engagement. Ensure that gate and keeper are closed before use.
- Anchors shall only be connected to the swivel at the top of the housing. DO NOT connect an anchor to the carrying handle on the housing of the 30 ft (10 m) / 50 ft (15 m) SRL.
- Additional lanyard connectors shall not be added, as this would serve to lengthen the lifeline and increase free fall.
- Unsuitable for use on unstable surfaces, fine grain materials or particulate surfaces such as sand or coal, as insufficient speed may prevent lock-on in the event of a fall (possible engulfment hazard).
- DO NOT use where line may be exposed to abrasive edges. For leading edge guidance, see Section 5.3 Leading Edge Installation and Use.
- SRLs shall not come into contact with hot surfaces (such as hot pipes), become entangled with moving machinery, or come into contact with electrical hazards (such as high voltage power lines).
- SRLs shall be protected from fire, acids, caustic solutions, or temperatures outside the range -40°F to 130°F (-40°C to 54°C).

Failure to follow these warnings can result in serious personal injury or death.

#### 5.2 General Installation and Use

**Connectors:** Ensure SRL connectors are compatible with the attachments to which they are connected (to prevent rollout), and are fully closed and locked before use. See Section 3 Product Specification.

**Anchors:** Ensure the SRL is attached to a compatible anchor – flexible anchors, such as anchor lines, horizontal lifelines, rail, or cantilever structures can affect the ability of the SRL to lock-on in the case of a fall. For further clarification on compatibility specifications, refer to the user instructions of the flexible anchor product. Should compatibility information not be included in the flexible anchor user instructions, contact the flexible anchor manufacturer for clarification.

# **▲** WARNING!

Anchors shall only be connected to the swivel at the top of the housing. DO NOT connect an anchor to the carrying handle on the housing of the 30 ft (10 m) / 50 ft (15 m) SRL.

Failure to follow this warning can result in serious personal injury or death.

**Retraction:** In use, the SRL lifelines will extract and retract without hesitation. Do not allow the lifeline to pass through legs, under arms, or wrap around structures. If the lifeline does not retract in use, fully extract the lifeline and slowly allow it to retract. If the lifeline continues to hesitate in retraction, contact MSA.

**Storage:** When not in use, store with the lifeline fully retracted as prolonged periods of full extraction may weaken the retraction spring. Guide the lifeline back to the unit for full retraction. Do NOT release lifeline from a distance as it will retract at high speed, potentially damaging internal parts or cause cable jamming. If cable is jammed, firmly pull on the lifeline to help cinch cable around the inner drum. Next, completely push the top of the rubber bumper through the opening of the black nozzle. If the lifeline does not then freely retract, repeat the process several times. If the unit cannot be unjammed after repeated attempts, discontinue use of the unit and contact MSA Customer Service. The connector may also strike objects in its path, causing damage to those objects and to the connector. See Section 8 Cleaning and Storage for full cleaning and storage instructions.

#### 5.3 Leading Edge Installation and Use

If a fall over an edge is possible, special rescue measures shall be defined and trained for. Consideration shall be given to accessing a suspended user without further loading or moving the lifeline over an edge.

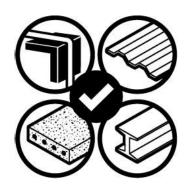
### **▲** WARNING!

- Leading Edge configurations shall only be used after all other hierarchy of controls, including restraint systems and overhead anchorages, have been exhausted.
- Leading Edge configurations shall only be used in accordance with local regulations.
- Leading Edge configurations shall be used in accordance with the instructions, warnings and limitations in these User Instructions.

Failure to follow these warnings can result in serious personal injury or death.

**Horizontal Offset:** When using V-SHOCK EDGE SRL configurations in a horizontal (leading edge) application, lateral movements to both sides of the center axis shall be limited to a maximum 10 ft (3 m) when the unit is set back ≤ 10ft (3m). Large horizontal spans shall be avoided, as they can increase forces applied to the structure and introduce swing falls. Consult the anchor location information in Section 6 Fall Clearance Charts for additional detail.

**Edge Types:** The V-SHOCK EDGE SRL configurations have been tested for horizontal (leading edge) use over a steel edge without burrs using the methods in VG11 RfU 11.060. Therefore, the V-SHOCK EDGE SRL may be used where a fall may occur over similar edges.



Additionally, while the VG11 RfU 11.060 standard does not address edges other than steel, the V-SHOCK EDGE SRL has been tested with the following edges:

- A cold formed corrugated steel test edge. Edges used for testing were at thicknesses ranging from 22 gage (0.0295" / 0.7493 mm) to 16 gage (0.0598" / 1.5189 mm). Therefore, V-SHOCK EDGE SRL configurations may be used where a fall may occur over similar edges.
- A concrete test edge with a compressive strength of 4500 5000 psi
  manufactured with an unfinished 90° edge without roughness, chipping, or other
  irregularities. Therefore, V-SHOCK EDGE SRL configurations may be used
  where a fall may occur over similar edges.

**Edge Evaluation:** Prior to use, leading edges must be evaluated by a qualified person. Use in these situations should only be as a last resort. Avoid working where the lifeline will continuously or repeatedly abrade against sharp, jagged, or abrasive edges. If the risk assessment indicates that an edge could damage the lifeline, then eliminate such contact or protect the edges using a pad or other means before starting work.

#### 6 Fall Clearance Charts

# 6.1 V-SHOCK EDGE SRL - Leading Edge Fall Clearance Charts

20 ft V-SHOCK EDGE SRL: 20 ft / 6 m Length 30 ft V-SHOCK EDGE SRL: 30 ft / 10 m Length 50 ft V-SHOCK EDGE SRL: 50 ft / 15 m Length

Use: Leading edge applications

**Capacity:** ≤ 310 lb (140 kg)

**(A)** Clearance values shown are based on 0 ft (0 m) anchorage setback from the leading edge. Anchorage connector may be used at setback distance of 0 ft (0 m)\*\*\* from the leading edge or as far back as required. Refer to the charts below for clearances with setback.

**NOTE:** Clearance chart anchorage location for illustrative purposes only.

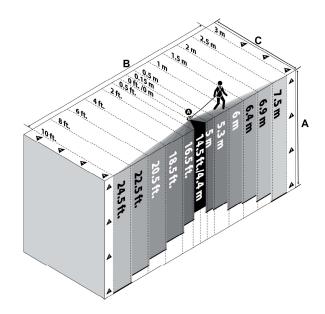


ILLUSTRATION NOT TO SCALE

**Use:** Clearances for Leading Edge with Setback Applications **Capacity:** ≤ 310 lb (140 kg)

B - Distance from Center (ft)

0.0.0
C - Setback
from Leading
Edge (ft)

	0	2	5	10	15	20	25	>25
0***	14.5	16.5	19.5	24.5				
	14.5	15.5	18.0	23.0				
5	14.5	15.0	16.5	21.0				
10	14.5	15.0	16.0	19.0				
15	14.5	15.0	15.5	17.5	21.0			
20	14.5	15.0	15.5	17.0	19.5	23.0		
25	14.5	15.0	15.0	16.5	19.0	21.5	25.0	
30	14.5	14.5	15.0	16.5	18.0	20.5	23.5	
35	14.5	14.5	15.0	16.0	18.0	20.0	22.5	
40	14.5	14.5	15.0	16.0	17.5	19.5	22.0	
45	14.5	14.5	15.0	16.0	17.0	19.0	21.0	
50	14.5	14.5	15.0	15.5	17.0	18.5	20.5	

#### B - Distance from Center (m)

C - Setback
from Leading
Edge (m)

	0	0.5	1.5		4.5		7.5	9
0***	4.4	5.0	5.9	7.5				
0.5	4.4	4.7	5.5	7.0				
1.5	4.4	4.6	5.0	6.4				
3	4.4	4.6	4.9	5.8				
4.5	4.4	4.6	4.7	5.3	6.4			
6	4.4	4.6	4.7	5.2	5.0	7.0		
7.5	4.4	4.6	4.6	5.0	5.8	6.6	7.6	
9	4.4	4.4	4.6	5.0	5.5	6.2	7.2	
10.5	4.4	4.4	4.6	4.9	5.5	6.1	6.9	
12	4.4	4.4	4.6	4.9	5.3	5.9	6.7	
13.5	4.4	4.4	4.6	4.9	5.2	5.8	6.4	
15	4.4	4.4	4.6	4.7	5.2	5.6	6.2	

#### **▲** WARNING!

\*\*\* Ensure that the setback distance meets requirements in anchorage connector manual and that the set-up does not allow the housing unit or top connector of the SRL to contact leading edge in the event of a fall.

Failure to follow this warning can result in serious personal injury or death.

# 6.2 V-SHOCK EDGE SRL - Non-leading Edge Fall Clearance Charts

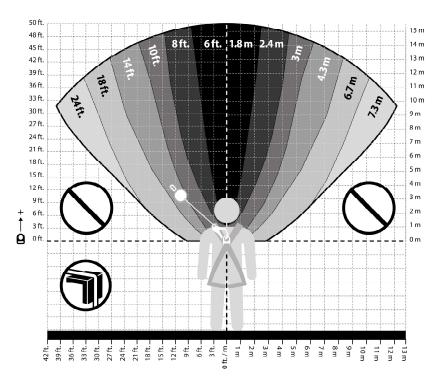
20 ft V-SHOCK EDGE SRL: 20 ft / 6 m Length 30 ft V-SHOCK EDGE SRL: 30 ft / 10 m Length 50 ft V-SHOCK EDGE SRL: 50 ft / 15 m Length

**Use:**Non-leading Edge Applications

**Capacity:** ≤ 310 lb (140 kg)



If anchored below D-Ring, refer to Section 6.1 V-SHOCK EDGE SRL - Leading Edge Fall Clearance Charts



#### 7 Pre-Use Checks and Periodic Examinations

Periodic examinations shall be completed by a person, other than the user, competent in the examination of SRLs, in accordance with the manufacturer's instructions. The interval will be dictated by the usage, local regulations, and environmental conditions, and will be at least annually. See Table 1 Periodic Examination Interval for more information.

The safety of the user relies upon the continued efficiency and durability of the equipment. Therefore, pre-use checks shall be completed before each use. A record shall be kept of the results of the examination. See Table 2 Pre-Use Checks for pre-use check information.

Table 1 Periodic Examination Interval

Usage	Interval		
Infrequent to light	Annually (12 months)		
Moderate to heavy	Semi-annually to annually (6-12 months)		
Severe to continuous	Quarterly to semi-annually (3-6 months)		

Usage shall be determined by a competent person. A competent person is defined as a person, other than the user, competent in the examination of PPE in accordance with MSA instructions.

Maximum product life: Continued use is dependent upon passing pre-use checks and periodic examinations. Service life may be reduced by frequency and conditions of use or local regulations.

#### **WARNING!**

- SRLs shall not be altered or added to. No unauthorized repairs, modifications, alterations and/or additions are
  permitted. Only MSA or persons or entities with written authorization from the manufacturer may make repairs to the
  SRL.
- SRLs that have arrested a fall or are unable to pass an inspection shall be tagged "UNUSABLE" until it has been destroyed and disposed of in accordance with local regulations
- Due to the nature of some fall arrest events, it is possible for the load indicator to not deploy. In the event that an SRL is subjected to fall arrest forces and the load indicator does not deploy, the SRL still must be removed from service and marked as "UNUSABLE" until it has been destroyed and disposed of in accordance with local regulations
- If the load indicator is deployed, immediately remove the SRL from service and mark it as "UNUSABLE" until it has been destroyed and disposed of in accordance with local regulations

Failure to follow these warnings can result in serious personal injury or death.

# 8 Cleaning and Storage

If required, the SRL exterior and lifelines may be cleaned using a damp cloth and warm water (max 40°C), and allowed to dry naturally before use. Excessive build-up of dirt, paint etc. can compromise both retraction and strength of the lifeline.

Store or transport the SRL in a cool, dry, clean environment, away from heat, steam, harmful fumes, corrosive agents, rodents, dust, oil, and direct sunlight. During transportation, the device shall be protected to prevent damage or contamination. Examine the SRL after long periods of storage prior to returning it to service.

Moving parts of snaphooks and carabiners may require periodic lubrication with low viscosity penetrating oil. Follow lubricant manufacturer's instruction. Do not over-lubricate. Wipe excess with a clean, dry cloth.

# 9 Warranty

Express Warranty – MSA warrants that the product furnished is free from mechanical defects or faulty workmanship for a period of one (1) year from first use or eighteen (18) months from date of shipment, whichever occurs first, provided it is maintained and used in accordance with MSA's instructions and/or recommendations. Replacement parts and repairs are warranted for ninety (90) days from the date of repair of the product or sale of the replacement part, whichever occurs first. MSA shall be released from all obligations under this warranty in the event repairs or modifications are made by persons other than its own authorized service personnel or if the warranty claim results from misuse of the product. No agent, employee or representative of MSA may bind MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. MSA makes no warranty concerning components or accessories not manufactured by MSA, but will pass on to the Purchaser all warranties of manufacturers of such components. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AND IS STRICTLY LIMITED TO THE TERMS HEREOF. MSA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**Exclusive Remedy** – It is expressly agreed that the Purchaser's sole and exclusive remedy for breach of the above warranty, for any tortious conduct of MSA, or for any other cause of action, shall be the repair and/or replacement, at MSA's option, of any equipment or parts thereof, that after examination by MSA are proven to be defective. Replacement equipment and/or parts will be provided at no cost to the Purchaser, F.O.B. Purchaser's named place of destination. Failure of MSA to successfully repair any nonconforming product shall not cause the remedy established hereby to fail of its essential purpose.

**Exclusion of Consequential Damages** – Purchaser specifically understands and agrees that under no circumstances will MSA be liable to Purchaser for economic, special, incidental, or consequential damages or losses of any kind whatsoever, including but not limited to, loss of anticipated profits and any other loss caused by reason of the non-operation of the goods. This exclusion is applicable to claims for breach of warranty, tortious conduct or any other cause of action against MSA.

For additional information, please use your local contacts on our website www.MSAsafety.com.