MSA ROSE

MODEL NO.
(FULL BODY STYLE)

USER INSTRUCTIONS
ROSE VESTYPE™ HARNESS

⚠ WARNING

National standards and state, provincial and federal laws require the user to be trained before using this product. Use this manual as part of a user safety training program that is appropriate for the user's occupation. These instructions must be provided to users before use of the product and retained for ready reference by the user. The user must read, understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.

1.0 VESTYPE HARNESS MODELS AND SPECIFICATIONS

TABLE 1. VESTYPE HARNESS MODELS COVERED BY THESE INSTRUCTIONS

NYLON	POLY-ESTER	D-RING LOCATIONS				BUCKLES & ADJUSTERS (a)		APPROX. WEIGHT		SYSTEM USAGE	
MODEL	MODEL	BACK	CHEST	HIP	SHOULDER	THIGH	CHEST	LBS	KG	CLASSES (b)	
502756	502755	1	0	0	0	F	F	3.0	1.4	A	
502757	502753	1	0	0	0	T	F	3.2	1.5	A	(e)
502762 (c)	502759 (c)	1	0	0 (d)	0	T	F	3.2	1.5	A,P	(e)
502765	502766	1	0	2	0	T	F	3.3	1.5	A,P	(e)
502767	502768	1	0	0	2	T	F	3.3	1.5	A,D,E	(e)
502769	502770	1	1	0	0	T	Q	3.3	1.5	A,E,L	
502771	502772	1	1	2	0	T	Q	3.6	1.6	A,E,L,P	(e)
502791	502790 (f)	1	0	0	0	Q	Q	2.6	1.2	A	(e)
502792 (c)	502793 (c)	1	0	0	0	Q	Q	3.1	1.4	A	(e)
502794	502795	1	0	0	0	Q	B	2.8	1.3	A	
502798 (c)	502799 (c)	1	1	0	0	T	Q	3.6	1.6	A,E,L	
502802 (c)	502803 (c)	1	1	0	0	Q	Q	3.2	1.5	A,E,L	(e)
502841	502840	1	1	0	0	Q	Q	2.9	1.3	A,E,L	
502843	502842	1	1	2	0	Q	Q	3.2	1.5	A,E,L,P	(e)
502845	502844	1	0	2	2	Q	Q	3.3	1.5	A,D,E,P	
502847	502846	1	0	2	0	Q	Q	2.9	1.3	A,P	
502849	502848	1	0	0	2	Q	Q	3.0	1.4	A,D,E	

NOTES TO TABLE 1:

(a) T = Tongue buckle, F = Friction buckle, Q = Qwik-Fit™ buckle, B = Three bar buckle.

(b) A = Fall arrest, D = Controlled descent, E = Confined space entry and exit, L = Ladder climbing, P = Work positioning. Classes are described in section 4.1 and in the CSA Z259.10 standard.

(c) Models have tool belt support straps. See section 4.3.2.

(d) Hip D-rings, for positioning, are present on the optional Tradesman'sTM Tool Belt (Model 502099) and Body Pad (Model 507174).

(e) CSA listed.

(f) Model 502790V includes an orange vest.

IMPORTANT: For custom versions of this product, follow these User Instructions and, if enclosed, refer to the supplemental instructions for additional information to be followed when using the custom product.

1.1 SPECIFICATIONS - ROSE VESTYPE HARNESS

- All Rose Vestype harnesses identified in Table 1 meet ANSI Z359.1, ANSI A10.14, CSA Z259.10 standards (except as noted) and applicable OSHA regulations. These instructions, and markings borne by the harness, fulfill the instruction and marking requirements of those standards and regulations.
- All D-rings are zinc plated, forged alloy steel and 100% proof tested to 3,600 lbf (16 kN). D-rings are sample proof tested to 4,000 lbf (17.8 kN) in accordance with CSA Z259.1. Minimum breaking strength is 5,000 lbf (22.2 kN).
- All buckles and adjusters are forged or stamped alloy steel and zinc plated. Minimum breaking strength is 4,000 lbf (17.8 kN).
- Webbing is nylon or polyester, 1.75 in (44 mm) nominal width with minimum breaking strength of 6,000 lbf (26.7 kN). Webbing is color dyed for identification. Nylon harnesses have green webbing for the thigh straps and sub-pelvic strap. In polyester harnesses these are aqua. All other straps for both nylon and polyester models are orange.
- Free fall distance (limit) must not exceed 6 ft (1.8 m) in accordance with OSHA and ANSI Z359.1. The Canadian

  Occupational Health & Safety Act of 1990 and ANSI A10.14 specify that free fall distance must not exceed 5 ft (1.5 m). The user must comply with applicable standards and regulations.
- When used as part of a personal fall arrest system, fall arresting forces must not exceed 1,800 lbf (8.0 kN).
- Capacity is 310 lb (140 kg) including weight of the user plus clothing, tools and other user-borne objects.

2.0 TRAINING

It is the responsibility of the purchaser of the Vestype harness to assure that harness users are made familiar with these User Instructions and trained by a competent person in: (1) workplace hazard awareness and hazard identification, evaluation and control; (2) how to properly select, inspect, use, store and maintain the harness; (3) how to determine and acceptably limit free fall distance, total fall distance, and maximum arresting force; (4) how to don, adjust and doff the harness; (5) proper attachment locations on the harness and proper attachment methods, including compatibility of connections to reduce the probability of accidental disengagement ("rollout"); (6) how to evacuate from a hazardous space; (7) what to do after a fall to protect the user from injury, including emergency rescue planning and execution; and (8) the consequences of improper use of the harness and associated equipment and of failure to follow instructions and training. If the harness is to be used for confined space applications, the user must also be trained in accordance with the requirements of OSHA regulation 29 CFR 1910.146 and ANSI Z117.1. Training must be conducted without undue exposure of the trainee to hazards. The

effectiveness of training should be periodically assessed (at least annually) and the need for more training or retraining determined. Rose Manufacturing Company offers training programs. Contact Rose for training information.

3.0 HAZARDS IDENTIFICATION, EVALUATION AND CONTROL

⚠ WARNING

Do not use the Rose Vestype Harness unless a qualified person has inspected the workplace and determined that identified hazards can be neither eliminated nor exposures to them prevented.

Prior to selecting a harness or other personal protective equipment, the user must make a workplace assessment of hazards and conditions where the equipment is required. Such assessment must, at a minimum, identify the presence of:

- **Hot objects**
- **Chemicals**
- **Abrasive surfaces**
- **Climatic factors**
- **Sparks**
- **Electrical hazards**
- **Moving equipment**
- **Weather factors**
- **Flames**
- **Environmental contaminants**
- **Moving materials**
- **Unstable/uneven surfaces**
- **Sharp objects**
- **Unguarded openings**
- **Slippery surfaces**
- **Heat-producing operations**
- **Confined space hazards**

Foreseeable changes in any of these conditions, taken individually or collectively, must be identified, evaluated and controlled. The materials and construction of the harness and associated equipment must be considered in the selection process such that these workplace conditions are suitably addressed and responded to. The equipment must match the work situation and workplace environmental factors.

The workplace assessment must identify all paths of intended user movement and all hazards along such paths. The user must identify the required range of mobility in each hazard zone and note the location and distance to all obstructions in potential fall paths. Lateral obstructions which could be contacted in a pendular fall arrest must be noted. An assembly connecting the harness to an anchorage must be selected which will satisfactorily limit total fall distance and allow for dynamic elongation and activation distance of the assembly. If the Vestype harness is to be used for confined space entry operations, the workplace assessment must comply with the requirements of OSHA regulation 29 CFR 1910.146 and ANSI Z117.1.

4.0 DESCRIPTION OF ROSE VESTYPE HARNESSES

The intended purpose of each element in the Vestype harness is given in sections 4.1 through 4.4.

4.1 ATTACHMENT ELEMENTS (D-RINGS)

4.1.1 FALL ARREST ATTACHMENT (1):

Also called back D-ring. Present on all Vestype harnesses. For fall arrest [CSA class A]. Use only the back D-ring for connection to the other elements of a personal fall arrest system. The back D-ring may also be used as an attachment element for travel restriction.

4.1.2 SHOULDER ATTACHMENTS (2, IF PRESENT):

Also called shoulder D-rings. For rescue and retrieval lifting and lowering (by hoisting) [CSA class E]. Never use the shoulder D-rings for fall arrest or climbing protection. Use both shoulder D-rings together, never only one.

4.1.3 HIP ATTACHMENTS (2, IF PRESENT):

Also called hip D-rings. For restraint (work positioning and travel restriction) [CSA class P]. Never use the hip D-rings for fall arrest or for climbing protection, Always use both hip D-rings together, never only one. When work positioning, use a separate fall arrest system attached to the back D-ring.

4.1.4 FRONT ATTACHMENT (1, IF PRESENT):

Also called chest D-ring. For controlled descent, lifting and lowering (by hoisting), and for ladder climbing protection systems (provided the potential free fall distance is very short and footing can be easily regained) [CSA class L]. The chest D-ring may also be used for rescue, retrieval and evacuation.

4.2 BUCKLES AND ADJUSTERS

4.2.1 TONGUE BUCKLES (2, IF PRESENT):

Used for closing the harness thigh straps around the user's thigh. The buckle tongue must pass through the grommet hole on the leg strap and the free end of strap must be tucked into the strap collar.

4.2.2 FRICTION BUCKLES (2, IF PRESENT):

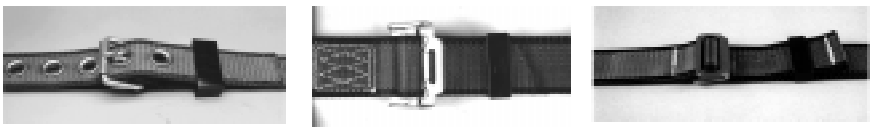
Used for securing the harness thigh straps around the user's thighs. The free end of the strap must extend at least three inches (8 cm) beyond the buckle and be tucked into the strap collar.

4.2.3 QWIK-FIT™ BUCKLES (2, OR 3, IF PRESENT):

Used for securing the harness thigh straps around the user's thighs and securing the shoulder strap retainer. The free end of the strap must extend at least three inches (8 cm) beyond the buckle and be tucked into the strap collar.

4.2.4 TORSO SIZING ADJUSTER (2):

Used in the harness shoulder straps to provide adjustment about the user's torso. Not present on harnesses with quick fit buckles.



Tongue Buckle | Friction Buckle | Qwik-Fit™ Buckle

4.3 OTHER HARNESS PARTS

4.3.1 STRAP COLLARS (9):

Used for retaining the free ends of straps and for positioning the shoulder strap retainer. Present on the thigh straps, shoulder strap retainer and shoulder straps of all Vestype harnesses. Strap collars reduce the possibility of: (a) buckle loosening or release due to free strap ends and, (b) strap ends being caught in moving machinery.

4.3.2 TOOL BELT SUPPORT STRAPS (2, IF PRESENT):

Used for attachment of optional Tradesman's Tool Belt (Model 502099) and Body Pad (Model 507174).

4.4 HARNESS OPTIONAL ACCESSORIES

4.4.1 COMFORT PAD ACCESSORY:

Model 507147. Wide pads snap under shoulder straps and/or thigh straps, spread strap pressure on body, and reduce chafing. See separate instructions P/N 622779.

4.4.2 TRADESMAN'S TOOL BELT AND BODY PAD:

Model 502099 Belt and Model 507174 Body Pad incorporate hip D-rings for positioning and means for assembling the user's tool pouches to the belt. The belt/pad assembly has quick-fastening bayonet connectors to suspend or remove it from the back of the harness when the harness is requested with optional female connectors. See separate instructions P/N 622115.

5.0 HARNESS SELECTION AND APPLICATIONS

5.1 PURPOSE OF ROSE VESTYPE HARNESS:

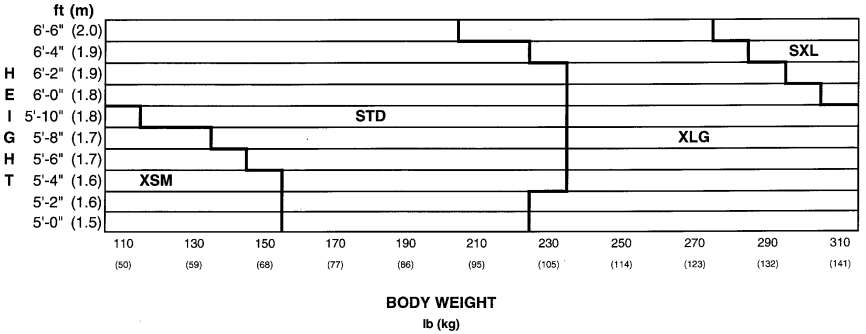
The Vestype harness (full body) is primarily a component of a personal fall arrest system. It may also be used for work positioning, travel restriction, ladder climbing,rescue, retrieval, and confined space entry/exit operations, depending on which attachment elements are included. See section 4. The harness straps are arranged to contain the torso and distribute the forces of fall arrest, restraint and suspension to the pelvis, thighs, chest and shoulders of the wearer.

Use of the Vestype harness must comply with these User Instructions and, further, is subject to approval under the usur's safety rules and regulations, safety director, supervisor, or a qualified safety engineer. Be certain the selection of Vestype harness is suited for the intended use and work environment. If there is any conflict between these User Instructions and other directives or procedures of the user's organization, do not use the Vestype harness until such conflicts are resolved. Consult all local, state, and federal Occupational Health and Safety Administration (OSHA) requirements for personal safety equipment. Also refer to the latest revision of ANSI Z359.1 and ANSI A10.14 standards for more information on full body harnesses and associated system components. In Canada, refer to provincial and federal regulations and to CSA Z259.10.

5.2 SIZING:

Refer to Table 2 for selection of the proper size of harness for the user. If the proper harness size is selected, there will not be an excessive length of strap ends after harness adjustment, yet there will be enough strap length to permit adjustment for comfort and for donning the harness over winter clothing and heavy work clothing. Contact Rose if there is any question as to proper sizing.

TABLE 2. VESTYPE HARNESS SIZING



5.3 USAGE LIMITATIONS:

The following applications limitations must be considered and planned for before using the Vestype harness.

5.3.1 PHYSICAL LIMITATIONS:

The Vestype harness is designed for use by one person with a combined total weight no greater than 310 pounds (140 kg), including clothing, tools, and other user-borne objects. Persons with muscular, skeletal, or other physical disorders should consult a physician before using. Pregnant women and minors must never use the harness. Increasing age and lowered physical fitness may reduce a person's ability to withstand shock loads during fall arrest or prolonged suspension. Consult a physician if there is any question about physical ability to safely use this product to arrest a fall or suspend.

5.3.2 CHEMICAL HAZARDS:

Acidic, alkaline, or other environments with harsh substances may damage the webbing and hardware elements of this harness. Nylon is more resistant to attack by alkaline or neutral pH environments. Polyester is more resistant to attack by acids. If working in a chemically aggressive environment, consult Rose Manufacturing Company to determine which harness material is better for your specific conditions. When working in the presence of chemicals, more frequent inspection of the harness is required.

5.3.3 HEAT:

Do not use harness in environments with temperatures greater than 185° F (85° C). Protect the harness when used near welding, metal cutting, or other heat producing activities. Sparks may damage the harness webbing and reduce its strength.

5.3.4 CORROSION:

Do not expose harness to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in a corrosive environment, more frequent inspection, cleaning, and drying of the harness is required. See sections 9, 11 and 12 for cleaning and inspection details.

5.3.5 ELECTRICAL HAZARDS:

Use extreme caution when working near energized electrical sources. Metal hardware on the harness and on other components connected to it will conduct electric current. Maintain a safe working distance {preferably at least 10 feet (3 m)} from electrical hazards.

5.3.6 MOVING MACHINERY:

When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), make sure that harness straps are secured by the strap collars. Maintain a safe working distance from machinery which could entangle clothing, the harness, or other components connected to it.

5.3.7 SHARP EDGES AND ABRASIVE SURFACES:

Do not expose harness straps to sharp edges or abrasive surfaces that could cut, tear or abrade and weaken the fibers. When work around sharp edges and abrasive surfaces is unavoidable, use heavy padding or other protective barriers to prevent direct contact.

5.3.8 WEAR AND DETERIORATION:

Any Vestype harness which shows signs of excessive wear, deterioration or aging must be removed from use and marked "UNUSABLE" until destroyed. See sections 11 and 12 for detailed inspection procedures.

5.3.9 IMPACT FORCES:

Any Vestype harness which has been subjected to the forces of arresting a fall must be immediately removed from service and marked as "UNUSABLE" until destroyed.

6.0 SYSTEMS REQUIREMENTS

The Vestype harness is one component of multi-component systems. Without the other necessary components, the harness serves no useful purpose. There are several different types of systems for use at heights and in confined spaces.

6.1 SYSTEM TYPES:

Systems are classified according to their intended purposes. There are six classifications of systems which may be used individually or in combinations. The six basic systems classifications are:

- Fall Arrest
- Personnel Riding
- Climbing Protection
- Rescue
- Restraint
- Evacuation

6.1.1 FALL ARREST SYSTEMS:

A fall arrest system is an assembly of components and subsystems, including the necessary connectors, used to arrest the user in a fall from a working height and suspend the user until rescue can be effected. A fall arrest system must always include the Vestype harness and connecting means between the harness and an anchorage or anchorage connector. Such connecting means may consist of a lanyard, energy (shock) absorber, fall arrester (rope grab), lifeline, self-retracting lanyard or suitable combinations of these.

6.1.1.1 LANYARD CONNECTING SUBSYSTEM

is the term applied to an assembly, including the necessary connectors, which is comprised of a lanyard and a shock absorber. The lanyard and shock absorber are usually permanently coupled together along with self-locking snaphooks at each end. The subsystem is attached between the fall arrest attachment (back D-ring) of the harness and an anchorage or anchorage connector.

6.1.1.2 FALL ARRESTER CONNECTING SUBSYSTEM

is the term applied to an assembly, including the necessary connectors, which is comprised of a fall arrester (rope grab) and a vertical lifeline. Sometimes a lanyard or lanyard with integral shock absorber, including the necessary connectors, is connected to the rope grab. The vertical lifeline must have a lifeline tensioner (counterweight), a connector for anchoring it, and may have a shock absorber. The subsystem is attached

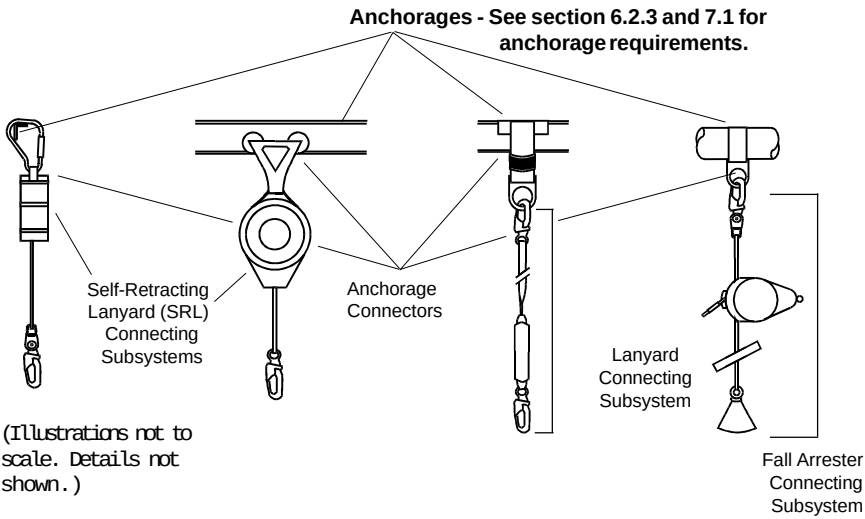
between the fall arrest attachment (back D-ring) of the harness and an anchorage or anchorage connector. Fall arrester connecting subsystems are sometimes suitable for use in climbing protection systems. See section 6.1.2.

6.1.1.3 SELF-RETRACTING LANYARD (SRL) CONNECTING SUBSYSTEM

is the term applied to an assembly, including the necessary connectors, comprised of a self-retracting lanyard only or a self-retracting lanyard and added shock absorber at the point of attachment to the user's harness. The Rose Dyna-Lock® and Dynevac® are self-retracting lanyard connecting subsystems. The subsystem is attached between the fall arrest attachment (back D-ring) of the harness and an anchorage or anchorage connector. These subsystems are sometimes suitable for use in climbing protection systems. See section 6.1.2.

6.1.2 CLIMBING PROTECTION SYSTEMS:

A climbing protection system is an assembly of components and subsystems, including the necessary connectors, used to arrest the user in a fall from a working height and suspend the user until rescue can be effected. Such systems are used for climbing ladders and structures that are designed for climbing. They may either be temporary (portable) or permanent. Temporary climbing protection systems are described in sections 6.1.1.2 and 6.1.1.3. Permanent climbing protection systems are ones of the rigid rail type such as the Rose Dyna-GlideTM systems. In those systems, a rigid rail is permanently attached to the structure to be climbed. A fall arrester device is attached to and glides on the rail to permit ascent and descent. It quickly locks in case of a fall. The Dyna-Glide fall arrester is attached between the front attachment (chest D-ring) of the harness and the fall arrester by use of a carabiner. Contact Rose for more information about Dyna-Glide climbing protection systems.



6.1.3 RESTRAINT SYSTEMS:

A restraint system is an assembly of components and subsystems, including the necessary connectors, used to:

(a) stabilize and partially support the user at an elevated work location and allow free use of both hands. This type of restraint system is referred to as a work positioning system or, simply, a positioning system.

(b) restrict the user's motion so as to prevent reaching a location where a fall hazard exists. This type of system is referred to as a travel restriction system.

A positioning system includes the Vestype harness (equipped with either hip D-rings or with optional Tradesman's Tool Belt and Body Pad), and connecting means between the harness and an anchorage or anchorage connector. Such connecting means usually consists of a positioning lanyard which is connected to both hip D-rings and

wraps around or connects to an anchorage or anchorage connector. A positioning system must always be backed up by a fall arrest system. A travel restriction system consists of the Vestype harness and a fixed length or adjustable length lanyard connected between the harness D-ring and an anchorage or anchorage connector.

6.1.4 PERSONNEL-RIDING SYSTEMS:

A personnel-riding system is used for lifting and lowering a worker to and from a work station which is not accessible by other preferred means, and potentially for positioning the worker at that work station. Personnel-riding systems are of two general types, namely: (a) the mobile supported aerial platform type (e.g. manually- and self-propelled platforms and vehicle-mounted elevating work platforms), and (b) suspended personnel hoisting type (e.g. suspended scaffolds, suspension chairs, and suspension harnesses). The Vestype harness may be used in both of these different systems; however, the way it is used will differ. When working on mobile supported aerial platforms, the user should use the harness as part of a restraint system (see section 6.1.3) anchored to the platform to provide restraint against falling from the platform. When working on suspended scaffolds or suspension seats, the user must use the Vestype harness as part of a fall arrest system of either the fall arrester (rope grab) type or self-retracting lanyard type. See sections 6.1.1.2 and 6.1.1.3. It is permissible to use the Vestype harness as a suspension harness for making access to the work station if the access time is of very short duration and the use of a suspension seat is not possible. When used as a suspension harness, the Vestype model must be equipped with shoulder D-rings. A "Y" (yoke) retrieval lanyard is connected to the shoulder D-rings and a suspension line (usually of a hoisting device) is connected to the yoke. In addition, the suspension harness must be connected (at the back D-ring) as part of a fall arrest system (usually of the SRL or rope grab type). **Do not use the Vestype harness for sustained, fully suspended work.** Contact Rose for separate instructions on associated equipment used in personnel-riding systems.

6.1.5 RESCUE SYSTEMS:

A rescue system is an assembly of components and subsystems, including the necessary connectors, used for moving an incapacitated or isolated person from a hazardous place to a safe place under alert or emergency conditions. An isolated person is one who has no available means of access to a safe place or is physically stranded or trapped. Rescue systems require actions of specially trained rescuers to effect the rescue of the incapacitated or isolated person. When rescuing a person who is wearing the Vestype harness, it is acceptable to connect the rescue line to the chest D-ring or to both of the shoulder D-rings (if present on the model in use) using a "Y" retrieval lanyard. If the Vestype harness being used by the person being rescued has no chest d-ring or shoulder D-rings, the back D-ring may be used as a last resort to connect the rescue line. Rose strongly recommends that the user select a harness with a chest D-ring to provide for rescue.

6.1.6 EVACUATION SYSTEMS:

An evacuation system is an assembly of components and subsystems, including the necessary connectors, employed by the user to move, unassisted by others, from a hazardous place to a safe place under alert or emergency conditions. An evacuation system consists of a full body harness and connecting means between the harness and an anchorage or anchorage connector. Such connecting means may consist of: (a) the Rose DynescapeTM Automatic Descender, (b) the Rose DynescapeTM Manual Descender, or (c) the Rose FallblocTM System. See the separate instructions for this equipment.

6.1.7 COMBINATIONS OF SYSTEMS:

Systems for fall arrest, restraint, climbing protection, personnel-riding, rescue and evacuation are often used in various combinations. For example, positioning type restraint systems must be backed up by a separate and independent fall arrest system. The Vestype harness has limited capability for use in combinations of systems. Consult a qualified safety engineer before selecting system components for your applications. Hands-on training is required to obtain the necessary information and skills needed to work with combinations of systems. Refer to

the separate instructions accompanying the several components and subsystems necessary to make up these systems.

6.2 COMPATIBILITY OF SYSTEM PARTS

6.2.1 COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS:

Rose Vestype harnesses are designed to be used with Rose approved components and connecting subsystems. Use of the Vestype harness with products made by others that are not approved in writing by Rose may adversely affect the functional compatibility between system parts and the safety and reliability of the complete system. Connecting subsystems must be suitable for use in the application (e.g. fall arrest, restraint or rescue). Rose Manufacturing Company produces a complete line of connecting subsystems for each application. Contact Rose for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. For fall arrest applications using the Vestype harness, the maximum fall arrest force must not exceed 1,800 lbf (8.0 kN). Contact Rose Manufacturing Company with any questions regarding compatibility of equipment used with the Vestype harness.

6.2.2 COMPATIBILITY OF CONNECTORS:

Connectors, such as D-rings, snaphooks, and carabiners, must be rated at 5,000 lbf (22 kN) minimum capacity. Rose connectors meet this requirement. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally disengage ("rollout"). Always verify that the connecting snaphook or carabiner and the D-ring on the harness or anchorage connector are compatible. Use only self-closing, self-locking snap- hooks and carabiners (as defined and required by ANSI Z359.1) with the Vestype harness.

6.2.3 ANCHORAGES AND ANCHORAGE CONNECTORS:

Anchorages for a personal fall arrest systems must have a strength capable of supporting a static load, applied in directions permitted by the system, of at least: (a) 3,600 lbf (16 kN) when certification exists, or (b) 5,000 lbf (22.2 kN) in the absence of certification. See ANSI Z359.1 for definition of certification. When more than one personal fall arrest system is attached to an anchorage, the anchorage strengths set forth in (a) and (b) must be multiplied by the number of systems attached to the anchorage. See ANSI Z359.1, section 7.2.3. This requirement is consistent with OSHA requirements under 20 CFR 1910, Subpart F, Section 1910.66, Appendix C. In addition, it is recommended that the user of personal fall arrest systems refer to ANSI Z359.1, Section 7, for important considerations in equipment selection, rigging, use, and training.

7.0 PLANNING THE USE OF SYSTEMS

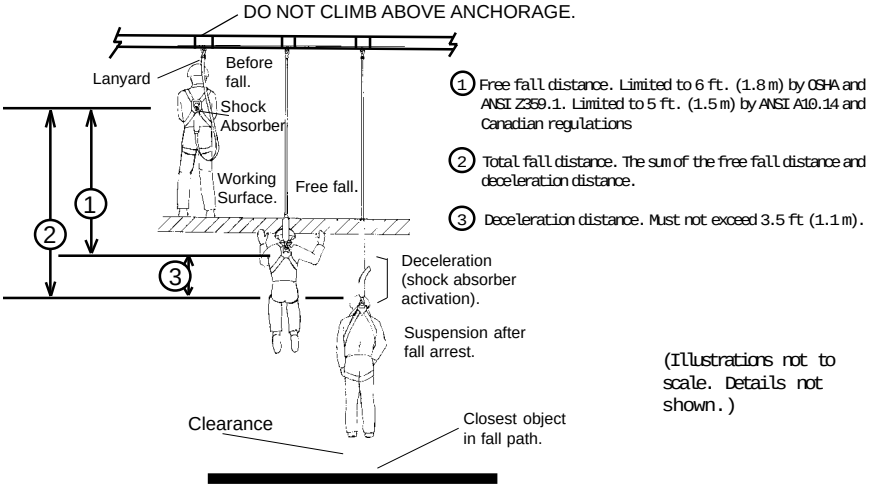
Perform the hazard identification and evaluation described in section 3 of these instructions. Then plan the system(s) before starting work. Consider all possible paths of user movement and all factors that could affect the user's safety before, during, and after a fall anywhere along these paths. A qualified person must select the components, materials, anchorage and anchorage connectors to match the system application, the work, workplace hazards, and the environment. Consider the following points when planning the system(s).

7.1 ANCHORAGE AND ANCHORAGE CONNECTOR SELECTION:

Determine the necessary locations of anchorages to assure that the user will be continuously connected when exposed to hazards of falling. Select anchorages that are stable and have the strength required by section 6.2.3 of these instructions. Carefully select the locations of the anchorages to: (a) reduce possible free fall distance, (b) prevent swing fall hazards, and (c) provide clear space in the potential fall paths to avoid striking an object. Do not select anchorage locations that will require the user to work above them as this will increase the potential free fall and total fall distances. Plan the types of anchorage connectors that will need to be selected and refer to the instructions for same.

7.2 FREE FALL DISTANCE, TOTAL FALL DISTANCE, AND SYSTEM ELONGATION:

Personal fall arrest systems must be selected and rigged to ensure that potential free fall distances will never exceed 6 feet (1.8 m) as required by OSHA and ANSI Z359.1. [In Canada, free fall distance is limited to 5 feet (1.5 m) by regulation. ANSI A10.14 also restricts free fall distance to 5 feet (1.5 m)]. See separate instructions for connecting subsystems to determine the deceleration distance and dynamic elongation which must be allowed for in the space of potential fall paths. Total fall distance is the sum of free fall distance and deceleration distance. Dynamic elongation of the system (temporary elastic stretch of connecting components and subsystems) must be added to total fall distance and clearance allowed.

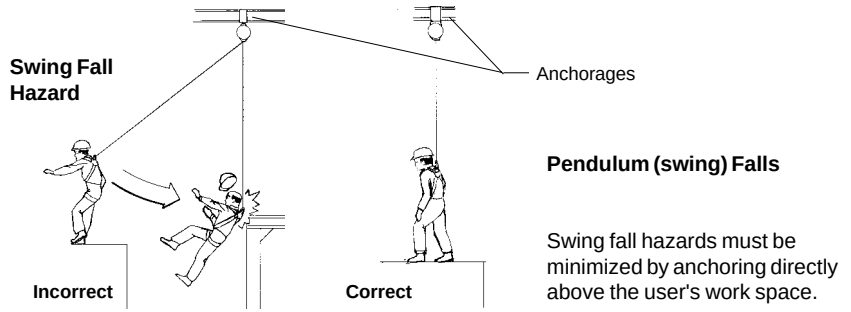


7.3 USER MOVEMENTS:

Identify all necessary movements of the user and the materials and equipment needed to perform the planned work. Plan for avoidance of the crossing or tangling of connecting subsystems of two or more workers. Anticipate user movements that might introduce hazards of the connecting subsystem passing under, about or between body parts or invite the user to clamp, knot or otherwise prevent the connecting subsystem from functioning properly. Establish controls to prevent these occurrences.

7.4 PENDULUM (SWING) FALLS:

Swing falls can occur when the system is not anchored directly above the user. The force of striking an object in a pendular motion can cause serious injury. Always minimize swing falls by working as directly below the anchorage point as possible.



7.5 CLEAR SPACE IN FALL PATH:

Make certain that enough clearance is available in all potential fall paths to prevent striking an object. The amount of clearance needed depends upon the type of connecting subsystem used, and the location of the anchorage. Consult the manufacturer's instructions for the particular connecting subsystem or component for clearance needed.

7.6 HAZARDS IDENTIFIED IN WORKPLACE ASSESSMENT:

All hazards of the type set forth in section 3 of these instructions must be addressed and suitable controls planned and implemented. For example, if work must be performed near unavoidable sharp edges, plan to protect against cutting by use of heavy padding or other means of covering the sharp edge.

7.7 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 special training necessary to effect prompt rescue under all foreseeable conditions. If the rescue be from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z117.1 must be taken into account. Although a rescue plan and the means to implement it must always be in place, it is a good idea 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.

8.0 USAGE

8.1 HARNESS INSPECTION BEFORE EACH USE:

Inspect the harness to verify that it is in serviceable condition. Examine every inch of the harness straps for severe wear, cuts, burns, frayed edges, abrasion, or other damage. Examine stitching for any pulled, loose, or torn stitches. See section 11 for inspection details. Do not use harness if inspection reveals an unsafe condition.

8.2 DONNING AND DOFFING THE VESTYPE HARNESS

8.2.1 PUTTING ON (DONNING) AND ADJUSTING THE HARNESS:

Begin by inspecting the harness as described in section 11.2. Then follow these steps to put the harness on and adjust it properly to the body:

STEP 1:

Locate the back D-ring, held in position by the back D-ring locator, and raise the harness. Adjust any straps that may be twisted before continuing.

Step 1

Step 2

STEP 2:

Slip the Vestype harness shoulder strap over one shoulder.

STEP 3:

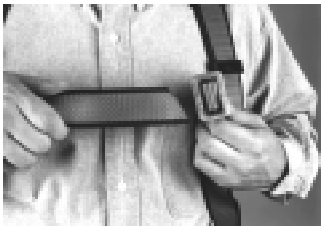
Reach around to grasp the second shoulder strap and pull it into place.

Step 3

SHOULDER STRAP RETAINER:

STEP 4:

If the harness has a **3 bar buckle** loosely buckle the shoulder strap retainer. NOTE: Final positioning and adjustment of the shoulder strap retainer will be completed after the shoulder straps are fitted.



Step 4a

4A.

Pass the retainer strap through both slots of the retainer buckle.

4B.

Fold the retainer strap back and thread it through the first slot of the retainer buckle.

Step 4b

STEP 5:

If the harness has a **QwikFit™ Buckle** loosely buckle the shoulder strap retainer.

Step 5a

5A.

Pass the retainer strap with the Qwik-Fit buckle through the retaining buckle by turning the buckle at an angle and pass it completely through the opening.

Step 5b

5B. Make sure the Qwik-Fit buckle is correctly seated in the receiving buckle.

STEP 6:

Pull the harness down so that the seat strap is positioned at the crease of the buttocks/thighs.

Step 6

THIGH STRAPS:

STEP 7:

If the harness thigh straps have a **tongue buckle**, then:

Step 7a

7A.

Reach between the legs, grasp one thigh strap and bring it forward. Be sure to not twist the strap or cross the strap between the legs.

7B.

Thread the thigh strap through the buckle frame and tighten it until it is snug and neither too tight nor too loose.

7C.

Insert and seat buckle tongue securely in grommet hole. Tuck strap end through the strap collar.

Steps 7b and 7c

7D.

Repeat steps a, b and c for the other thigh strap.

Step 7d

STEP 8:

If the harness thigh straps have a **friction buckle**, then:

8A. Reach between the legs, grasp one thigh strap and bring it forward. Be sure to not twist the strap or cross the strap between the legs.

8B. Thread the strap end through the back slot between the buckle frame and the knurled sliding bar.

Steps 8b & 8c

8C. Thread the strap end through the front slot between the buckle frame and the knurled sliding bar. Because the bar is spring-loaded, it will need to be pushed back in order to insert the strap end through the front slot. Pull the strap through the buckle and tighten it until it is snug and neither too tight nor too loose. Tuck the strap end through the strap collar and repeat the above steps for the other thigh strap.

STEP 9:

If the harness thigh straps have a **Qwik-Fit™ buckle**, then:

9A. Reach between the legs, grasp one thigh strap and bring it forward. Be sure to not twist the strap or cross the strap between the legs.

9B. Pass the Qwik-Fit™ buckle through the retaining buckle by turning it at an angle and passing the buckle completely through the opening. Make sure the Qwik-Fit™ buckle is correctly seated in the receiving buckle.

9C. Pull the strap through the buckle and tighten it until it is snug and neither too tight nor to loose. Repeat the above steps for the other thigh.

Step 9a & 9b

Step 9c

Step 10

SIZE ADJUSTING:

STEP 10:

If the harness has **torso sizing adjusters**, then:

10A. If the torso fit is too tight or too loose, and the seat strap does not snugly rest beneath the buttocks, lengthen or shorten the shoulder straps by threading webbing through the torso sizing adjuster as follows:

10B. Take up or let out slack in each torso strap by feeding webbing through the adjuster.

10C. Feed webbing through the torso sizing adjuster until you achieve a snug fit. Then pull on the free ends of straps and take out the slack. Slide the uppermost strap collar to a position that captures the strap tip against the body.

STEP 11:

If the harness has **Qwik-Fit™ buckles and a chest D-ring** then:

11A. Move the adjusting buckle to a position as far as possible from the wearer's neck, but not more than 6in. (152 mm) measured along the contours of the body from the top of the shoulder to the top of the strap.

11B. Take up or let out slack in each torso strap by feeding webbing through the buckle until you achieve a snug fit.

Step 11b

11C. Pull on the free ends of straps and take out the slack . Slide the strap collar to a position that captures the strap tip against the body.

11D. Shoulder strap retainer must be level across chest, not at an angle.

11E. Repeat the above steps for other chest adjusting buckle.

Step 11c

Step 12

STEP 12:

If a harness has a **3-bar buckle**, move the shoulder strap retainer to a position as far as possible from the wearer's neck, but not more than 6 in (152 mm) measured along the contours of the body from the top of the shoulder to the top of the strap.

Tighten the shoulder strap retainer by feeding webbing through the buckle until you achieve a snug fit. Slide the strap collar to a position that captures the strap tip against the body. Move the strap collars (2 on each shoulder strap) to secure the shoulder strap retainer in position.

STEP 13:

For a correct fit, the back D-ring should be centered between the shoulder blades. Shoulder D-rings (if present) should be located above the shoulders.

After the Vestype harness is properly fitted, the user may then connect to other components selected for the system. When making connections to the harness, follow the guideline in section 4 to select the proper D-ring for the task. When making connections to the anchorage, follow the guidelines in sections 5, 6 and 7.

Taking off (doffing) the harness

8.2.2 TAKING OFF (DOFFING) THE HARNESS:

To remove the harness, unbuckle the thigh straps and the shoulder strap retainer, then slip harness shoulder straps off the shoulders. After use, return the Vestype harness to the proper person and place for cleaning and storage as described in section 9.

8.3 MAKING PROPER CONNECTIONS

8.3.1 USE OF D-RINGS (ATTACHMENT ELEMENTS):

For general fall arrest use, connect to the D-ring on the back between the shoulders. Hip D-rings (if present) are for positioning or restraint application only, never for fall arrest. Shoulder D-rings (if present) are for use in lifting/lowering, rescue and retrieval. Do not use for fall arrest. Always use both shoulder D-rings together, never only one. Use in conjunction with a Rose "Y" retrieval lanyard. For ladder climbing, it is permissible to attach to the chest D-ring of the harness, provided the potential free fall is very short and footing can be easily regained. See section 4.

8.3.2 MAKING CONNECTIONS:

When using a snaphook to connect to an anchorage or when coupling components of the system together, be certain accidental disengagement ("rollout") cannot occur. Rollout is possible when interference between a snaphook and the mating connector causes the snaphook's gate or keeper to accidentally open and release. Rollout occurs when a snaphook is snapped into an undersized ring such as an eye bolt or other non-compatibly shaped connector. Only self closing, self-locking snaphooks and carabiners should be used to reduce the possibility of rollout when making connections. Do not use snaphooks or connectors that will not completely close over the attachment object. Do not make knots in a lanyard. Do not hook the lanyard back onto itself. Snaphooks and carabiners must not be connected to each other. Do not attach two snaphooks into one D-ring. Do not attach a snaphook directly to a horizontal lifeline. Always follow the manufacturer's instructions supplied with each system component. Refer to Section 2 of these instructions.

9.0 CARE, MAINTENANCE AND STORAGE

9.1 CLEANING INSTRUCTIONS:

Clean the Vestype harness with a solution of water and mild laundry detergent. Dry hardware with a clean cloth and hang harness to air dry. Do not speed drying with heat. Excessive accumulation of dirt, paint, or other foreign matter may prevent proper function of the Vestype harness and, in severe cases, weaken the webbing. Questions concerning harness conditions and cleaning should be directed to Rose Manufacturing Company.

9.2 MAINTENANCE AND SERVICE:

Equipment which is damaged or in need of maintenance must be tagged as "UNUSABLE" and removed from service. Corrective maintenance (other than cleaning) and repair, such as replacement of elements, must be performed by the Rose factory. Do not attempt field repairs.

9.3 STORAGE:

Store the harness in a cool, dry and clean place out of direct sunlight. Avoid areas where heat, moisture, light, oil, and chemicals (or their vapors) or other degrading elements may be present. Equipment which is damaged or in need of maintenance should not be stored in the same area as usable equipment. Heavily soiled, wet, or otherwise contaminated equipment should be properly maintained (e.g. dried and cleaned) prior to storage. Prior to using equipment which has been stored for long periods of time, a Formal Inspection should be performed by a competent person. See section 12.

10.0 MARKINGS AND LABELS

10.1

The following labels must be present, legible and securely attached to the harness. The Formal Inspection Grid must be punched with a date (month/year) within the last six months. If not, remove the harness from use and mark it as "UNUSABLE" until a Formal Inspection is performed in accordance with section 12. See section 4 for location of labels.

Rose

Material: Nylon
Size: STD
Model: 502XXX

VESTYPE™ HARNESS

Capacity: 310 lbs (140 kg) (includes person + clothes + tools).

Free Fall Limit: 6 ft (1.8 m) OSHA, ANSI Z359.1; 5 ft (1.5 m) ANSI A10.14, CSA (using Fall Arrest Attachment).

Meets: OSHA requirements; ANSI Z359.1; ANSI A10.14,Type 1; CSA Z259.10, class. A.

DATE MADE:

SERIAL NUMBER:

1 23456 78901 2

DO NOT REMOVE LABELS

DATA CARD

⚠WARNING

Attention: ***Consult your safety director.***
Atención: ***Consultar su director de seguridad.***
Attention: ***Consultez votre directeur de sécurité.***
Achtung: ***Fragen Sie bitte Ihren Sicherheitsdirektor.***
Attenzione: ***Vuole rivolgersi al Suo***

GENERAL- Do not use this product unless a qualified person has inspected workplace and determined identified hazards can neither be eliminated nor exposures to them prevented. The manufacturer included separate instructions with this product. Copies are available. Read and heed all instructions, labels and warnings for this product and products intended for use with it. **Failure to do so may result in serious injury or death.**

LEAF ONE

⚠WARNING

SELECTION AND USE - Do not expose to chemicals and corrosives which could weaken parts. Consult manufacturer if in doubt.

- Do not expose to sharp edges, abrasive surfaces, sparks, flame or heat above 185° F (85° C).
- Keep safe distance from moving machinery and electrical sources. Metal parts conduct electricity.
- Snaphooks and carabiners connected to this product must: (1) be locking type meeting ANSI Z359.1; (2) be compatible with D-ring to reduce rollout possibility, and; (3) be securely closed and locked when connected. **Be sure** the dimensions, shape and pressure of D-ring and nearby objects cannot unlock or open snaphook or carabiner.
- Avoid making multiple connections to a single D-ring.

LEAF TWO

Note: On harnesses sold in Canada, a French translation of the front side of this label appears in this space.

P/N 521535

⚠WARNING

USER TRAINING - To meet standards, the user must be trained before using this product. The manufacturer offers training.
SELECTION AND USE-This product performs as stated when tested to the reference standards. It is part of a system. Other components and an anchorage are needed to complete the system. CSA standard Z259.10 certification is applicable to the device only. CSA has not investigated the anchorage. A qualified person must select the components, materials and anchorage to match the system application, the work, workplace hazards and the environment.

- Do not connect or combine with other components in ways which may hinder or defeat function of system . See separate instructions.

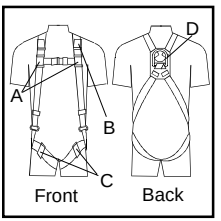
P/N 622526

⚠WARNING

SELECTION AND USE- If this product is used in a fall arrest system, forces must not exceed 1800 lbf (8 kN). Do not reuse if subjected to fall arrest forces. Remove from use. Label "UNUSABLE" until destroyed.

- Do not misuse, abuse, alter or attempt repairs to this product. Disregard voids warranty. Only the manufacturer or persons authorized in writing by the manufacturer are permitted to make repairs.
- Have rescue and evacuation plans and means at hand to implement.
- Human tolerance to fall arrest and suspension is reduced by age, un-fitness and pre-existing disorders. If in doubt, consult a physician before using this product. Pregnant women and minors must never use.

P/N 622527



WEARING AND USE

A- Torso Sizing Adjusters (2): for fit.
B- Shoulder Strap Retainer: for maintaining correct position of shoulder straps. **Adjust strap as far as possible from wearer's neck, but not more than 6 in (152 mm) from top of strap to top of shoulder.**
C-Thigh Strap Buckles (2): for fit. **Must be securely buckled!**
D- Fall Arrest Attachment: for fall arrest (CSA class. A).

LEAF THREE

⚠ CAUTION

INSPECTION - Inspect for malfunction and missing, broken, distorted, damaged, corroded, weakened or worn parts. See separate instructions for inspection details. If product is defective or if 6 months pass without formal inspection, remove from use. Label "UNUSABLE" until reinspected, repaired or destroyed.

- User must inspect before each use.
- Separate competent person must formally inspect at least every 6 months.
- Punch inspection grid if product passes formal inspection.

FORMAL INSPECTION GRID

	J	F	M	A	M	J	J	A	S	O	N	D
98												
99												
00												
01												
02												

PUNCH GRID ON DATE OF FIRST USE

LEAF FOUR

⚠ WARNING

WEARING AND USE

- Take up slack in straps until fit is snug yet comfortable. See separate instructions for donning and doffing harness.

CARE AND STORAGE - Clean with mild soap and water. Air to dry. Do not apply heat.

- Store in cool, dry and clean place away from direct sunlight and chemical vapors.
- Remove from use if improperly maintained. Label "UNUSABLE" until proper maintenance is performed or until destroyed.

P/N 622829B

Rose Manufacturing Company
2250 South Tejon Street
Englewood, Colorado 80110-1000
USA
Ph: 303-922-6246,
FAX: 303-934-9960
Toll Free: 800-722-1231

Made in USA.

P/N 622762

11.0 INSPECTION BEFORE EACH USE

11.1 INSPECTION FREQUENCY:

The Vestype harness must be inspected by the user before each use. Additionally, the harness must be inspected by a competent person other than the user at intervals of no more than six months. The competent person inspection is referred to as Formal Inspection. See section 12 for Formal Inspection procedures.

⚠ CAUTION

If the harness has been subjected to fall arrest forces, it must be immediately removed from use and marked as "UNUSABLE" until destroyed.

11.2 PROCEDURE FOR INSPECTION BEFORE EACH USE

STEP 1:

Inspect the harness labels to verify that they are present and legible. See section 4 for location of labels. See section 10 for the specific labels that should be present and the information contained on them. Check the Formal Inspection Grid to be sure a Formal Inspection has been performed within the last six months. If the Grid does not indicate that a Formal Inspection has been performed within the last six months (by being punched), or if any labels are missing or illegible, remove the harness from use and mark it as "UNUSABLE" until a Formal Inspection is performed by a competent person.

STEP 2:

Inspect all webbing (straps) and stitching for cuts, fraying, pulled or broken threads, abrasion, excessive wear, altered or missing straps, burns, and heat or chemical exposures.

STEP 3:

Inspect all metallic parts (i.e. D-rings, oval rings, buckles, adjusters and grommets) for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, deep nicks, missing or loose parts, improper function, and evidence of excessive heat or chemical exposures.

STEP 4:

Inspect all plastic parts (i.e. back D-ring locator, strap collars, labels, tool belt support clips) for cut, broken, excessively worn, missing and loose parts. (Labels are to be additionally checked in accordance with Step 1 above.) Inspect for evidence of burns and excessive heat or chemical exposures.

STEP 5:

Inspect each component and subsystem of the complete system in accordance with the associated manufacturer's instructions. See section 6 for a description of the make-up of the different system types.

11.3 CORRECTIVE ACTION:

When inspection in accordance with section 11.2 reveals signs of inadequate maintenance, the harness must be immediately removed from service and marked as "UNUSABLE" until destroyed or subjected to maintenance by the user's organization in accordance with section 9. Defects, damage, excessive wear and/or aging are generally not repairable. If detected, immediately remove the harness from use and mark it as "UNUSABLE" until destroyed. For final disposition, submit the harness to a competent person who is authorized to perform Formal Inspection. If there is any question as to repairability, contact Rose or a service center authorized in writing by Rose before further use of the harness.

⚠ CAUTION

Only Rose Manufacturing Company or parties with written authorization from Rose may make repairs to the harness.

12.0 FORMAL INSPECTION

12.1 FORMAL INSPECTION FREQUENCY:

The Vestype harness must be formally inspected by a competent person other than the user at intervals of no more than six months. (The qualifications of a competent person are established by OSHA.) If the harness is exposed to severe working conditions, more frequent formal inspections may be required. The frequency of inspection by a competent person should be established by the user's organization based on such factors as the nature and severity of workplace conditions, modes of use, and exposure time of the equipment. The competent person should perform a methodical and thorough visual and tactile inspection by following the inspection procedure in section 12.3. The inspection results should be recorded in the Formal Inspection Log and retained for reference. In addition, if the harness passes Formal Inspection, the competent person should punch the date (month and year) of Formal Inspection on the grid supplied with the labels on each harness. The user should never punch this grid; however, the user should check it before each use to be sure a Formal Inspection has been performed within the last six months.

12.2 CONTROL OF EQUIPMENT:

The user's organization should establish and enforce a policy and procedure whereby any harness that is found to be defective, damaged, or in need of maintenance be immediately removed from use, marked as "UNUSABLE" and immediately thereafter submitted to custody of the competent person responsible for Formal Inspection. This has the benefits that: 1) defective equipment is secured from further use until proper action is taken; 2) uniform standards are applied for determining whether the equipment is acceptable or not acceptable for further use; 3) uniform methods of cleaning and other maintenance are applied; and 4) there is a central point for evaluation of conditions that may be recurring and require preventive measures such as coordination with the equipment manufacturer, selection of alternate equipment, additional training of equipment users, or changes to the workplace conditions.

12.3 FORMAL INSPECTION PROCEDURE:

The Formal Inspection Procedure is similar to the user's inspection before each use described in section 11. However, it differs in three important respects, namely: 1) it is performed by a competent person other than the user who is trained and authorized to perform Formal Inspection for the user's organization; 2) it is more detailed and is methodically recorded on a Formal Inspection Log that is kept on file for future reference; and 3) it results in final disposition of the equipment as either "acceptable" (indicated by the formal inspector punching the current month/year in the Formal Inspection Grid on one of the product labels) or as "not acceptable" followed by destruction of the product. The described detailed inspection record keeping is needed in order to trace detected defects to their causes. A simplified alternative procedure is also explained below.

There are three forms that are important to the Formal Inspection Procedure. They are the Formal Inspection Diagram ("DIAGRAM"), the Formal Inspection Log ("LOG"), and the Formal Inspection Checklist ("CHECKLIST"). These forms relate and refer to each other so it is necessary to understand their purposes and uses before discussing the inspection procedure.

12.3.1 DIAGRAM:

This is a front and back view line drawing of the harness with numbered callouts of the parts. The numbers called out in the diagram correspond to those shown on the column titled "INSP. POINT" on the LOG.

12.3.2 LOG:

This is the form to be used to record observations made during the Formal Inspection. The Model No., Serial No. and Date Made are recorded by the inspector from the Data Card in the label set. The formal inspector's name and the inspection date are entered by the inspector. The "Disposition" entry is the last entry made on this form after all observations have been recorded. The entry is either "Acceptable" (A) or "Not Acceptable" (N). The columns on the LOG are as follows:

INSP. POINT -

Inspection point. The harness part designated in the callouts on the DIAGRAM.

DESCRIPTION -

Name of the harness inspection point. There are three broad categories of inspection points, namely, fabric parts, metallic parts and plastic parts.

QTY/H -

Quantity per harness. The quantity of each harness inspection point that must be inspected.

PTY -

Priority. A Priority "1" indicates a critical part. If one or more not acceptable conditions are found by inspection of Priority 1 parts, the harness is not acceptable for use. A Priority "2" indicates a non-critical part. If three or more not acceptable conditions are found by inspection of Priority 2 parts, the harness is not acceptable for use.

COND. -

Condition. The condition of the harness part is indicated here by entry of the appropriate Condition Code shown on the CHECKLIST (e.g. W1, S4, M0, etc.). Alternatively, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

OVERALL ASSESS. -

Overall assessment. The inspector's evaluation of the overall acceptability or non-acceptability of the part category (i.e. webbing, stitching, metallic, plastic). The appropriate Overall Assessment Code defined on the CHECKLIST is entered here (e.g. WA, SN, MA, PN). Alternatively, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

COMMENTS -

Indicate pertinent inspector observations here.

12.3.3 CHECKLIST AND CODES:

This is a table which categorizes the different types of harness parts into four broad categories (i.e. webbing, stitching, metallic, plastic). For each of these categories, the formal inspector checks the harness parts for each of the associated conditions (e.g. cuts, fraying, abrasion, wear, etc.). The codes for the detected conditions are entered in the Condition column on the LOG (e.g. W1, S4, M0, etc.). Overall assessment codes are given, along with the criteria for assigning them, so the inspector can decide if the harness is acceptable or not acceptable for further use (e.g. WA, SN, MA, PN). Alternatively, instead of using these codes, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

12.3.4 FORMAL INSPECTION PROCEDURAL STEPS:

Step 1: Record on the LOG the Model No., Serial No. and Date Made information shown on the Data Card of the harness label set. Record the inspector's name and inspection date.

Step 2: Arrange the harness so the parts to be inspected are readily visible.

Step 3: Starting with the webbing category of parts shown on the LOG, inspect each part (inspection point) one at a time. Refer to the DIAGRAM for identification of each Inspection Point. Each partmust be inspected for the possible presence of the conditions shown on the CHECKLIST. Enter in the Condition column on the LOG the proper Condition Code (listed on the CHECKLIST) or "FAIL" if a defect exists. If there is any question whether the harness condition has materially changed since the last Formal Inspection, retrieve and review the prior Formal Inspection records for the specific harness.

Step 4: Repeat steps 2 and 3 for the stitching, metallic and plastic categories of part types.

Step 5: Determine whether the part (inspection point) is acceptble or not acceptable. If a Priority 1 inspection point has a defective condition, enter in the Overall Assessment column of the LOG the proper code taken from the CHECKLIST (e.g. WN, SN, MN, PN) or simply "FAIL". For Priority 2 inspection points, count the number of defective conditions identified in the Condition column of the LOG. If there is a total of three or more defective conditions for Priority 2 inspection points the harness is not acceptable for further use.

Step 6: Determine disposition of the harness. If in step 5 it has been determined that the harness is not acceptable, enter "N" of "FAIL" in the Disposition space on the LOG. In addition, a notation should be made in this space as to whether the harness is to be destroyed, returned to manufacturer/distributor, etc..

Step 7: If in step 5 it has be determined that the harness is acceptable for further use, enter "A" of "PASS" in the Disposition space on the LOG. Punch the Formal Inspection Grid on the appropriate harness label with the date (month/year) corresponding to the inspection date to indicate to harness users that the product has passed inspection as of that date.

Step 8: File the LOG for further reference.

12.4 FORMAL INSPECTION CHECKLIST AND CODES

TYPE OF PART INSPECTED	CONDITION	COND. CODE	OVERALL ASSESSMENT CODE	LEGEND
Webbing (straps)	Cuts/fraying	W 1	WA - (Webbing acceptable) WN - (Webbing not acceptable)	**Disposition:** A - (Acceptable) N - (Not acceptable) Enter "A" or Pass or "N" or Fail in "Disposition" blank on Formal Inspection Log. **Criteria for disposition of "N" (Not acceptable):** **(1)** If there is one or more Overall Assessment Code of "N" type (e.g. WN, SN, MN, PN) on a Priority 1 item, **or** **(2)** If there are three or more Overall Assessment Codes of "N" type on a Priority 2 item.
	Abrasion/wear	W 2		
	Partially missing/altered	W 3		
	Burns/heat exposure	W 4		
	Chemical exposure	W 5		
	Other	W 6		
	No visible change	W 0		
Stitching	Cut/pulled/loose thread	S1	SA - (Stitching acceptable) SN - (Stitching not acceptable)	
	Abrasion/wear	S2		
	Partially missing/altered	S3		
	Burns/heat exposure	S4		
	Chemical exposure	S5		
	Other	S6		
	No visible change	S0		
Metallic	Deformed/fractured	M 1	MA - (Metallic acceptable) MN - (Metallic not acceptable)	
	Corroded/deep pits	M 2		
	Missing/loose	M 3		
	Heat exposure	M 4		
	Chemical exposure	M 5		
	Burrs/sharp edges	M 6		
	Cuts/deep nicks	M 7		
	Malfunction	M 8		
	Other	M 9		
	No visible change	M 0		
Plastic	Cut/broken	P1	PA - (Plastic acceptable) PN - (Plastic not acceptable)	
	Wear damage	P2		
	Missing/loose	P3		
	Burns/heat exposure	P4		
	Chemical exposure	P5		
	Other	P6		
	No visible change	P0		

12.5 FORMAL INSPECTION LOG, EXAMPLE

Model No.: *502753* Inspector: *J. W. Doe*
Serial No.: *406510* Inspection Date: *12/3/93*
Date Made: *5/93* Disposition: *N - See item 27. Destroy harness.*

INSP. POINT	DESCRIPTION	QTY/H	PTY	COND. (b)	OVERALL ASSESS.(b)	COMMENTS
	FABRIC (FIBROUS) PARTS					
	WEBBING (STRAPS)					
1	Shoulder	2	1	*W6*	*WA*	*Stains - not damaged.*
2	Shoulder strap retainer	2	1	*W0*	*WA*	
3	Shoulder D-ring strap	2	1	------	------	
4	Thigh	2	1	*W0*	*WA*	
5	Sub-pelvic	1	1	*W6*	*WA*	*Some minor wear.*
6	Front D-ring strap	1	1	------	------	
7	Tool belt support (a)	2	2	------	------	
	STITCHING					
8	Shoulder ring strap	4	1	------	------	
9	Shoulder strap tip	2	1	*S0*	*SA*	*Stains - not damaged.*
10	Shoulder strap retainer	2	1	*S6*	*SA*	
11	Front D-ring strap	1	1	------	------	
12	Buckle strap	2	1	*S0*	*SA*	
13	Thigh strap	2	1	*S0*	*SA*	*Some wear. Minor.*
14	Thigh strap edges	4	2	*S6*	*SA*	
15	Sub-pelvic strap	4	1	*S0*	*SA*	
	METALLIC PARTS					
	D-RINGS/OVAL RINGS					
16	Back	1	1	*M0*	*MA*	
17	Shoulder	2	1	*M0*	*MA*	
18	Hip	2	1	*M0*	*MA*	
19	Chest	1	1	------	------	
	BUCKLES/ADJUSTERS/ GROMMETS					
20	Adjuster, torso sizing	1	1	*M0*	*MA*	
21	Adjuster/Buckle, Chest	2	1	------	------	
22	Buckle,tongue	2	1	*M0*	*MA*	
23	Buckle, friction	2	1	------	------	
24	Buckle, Qwik-Fit™	3	1	------	------	
25	Grommets, thigh strap	16	1	*M0*	*MA*	
26	Retainer buckle	1	1	*M0*	*MA*	
	PLASTIC PARTS					
27	Back D-ring locator	1	1	*P0*	*PA*	***BROKEN.*** *Back D-ring was*
28	Strap collar	9	1	*P0*	*PA*	*impacted.*
29	Labels	5	1	*P0*	*P0*	
30	Tool belt support clips (a)	2	2	------	------	

(a) Optional item.

(b) Optional simplified PASS/FAIL inspection format: Whenever an acceptable condition is found, the entry in the COND. and OVERALL ASSESS. columns may be left blank. Whenever a defective condition is found, enter "FAIL." The inspection may end upon detection of a single Priority 1 defect or three Priority 2 defects.

(c) Blank copies of the LOG, with associated CHECKLIST and DIAGRAM, are available from Rose Manufacturing Company. Call Toll Free (800) 722-1231

12.5 FORMAL INSPECTION LOG

Model No.: _____ Inspector: _____
Serial No.: _____ Inspection Date: _____
Date Made: _____ Disposition: _____

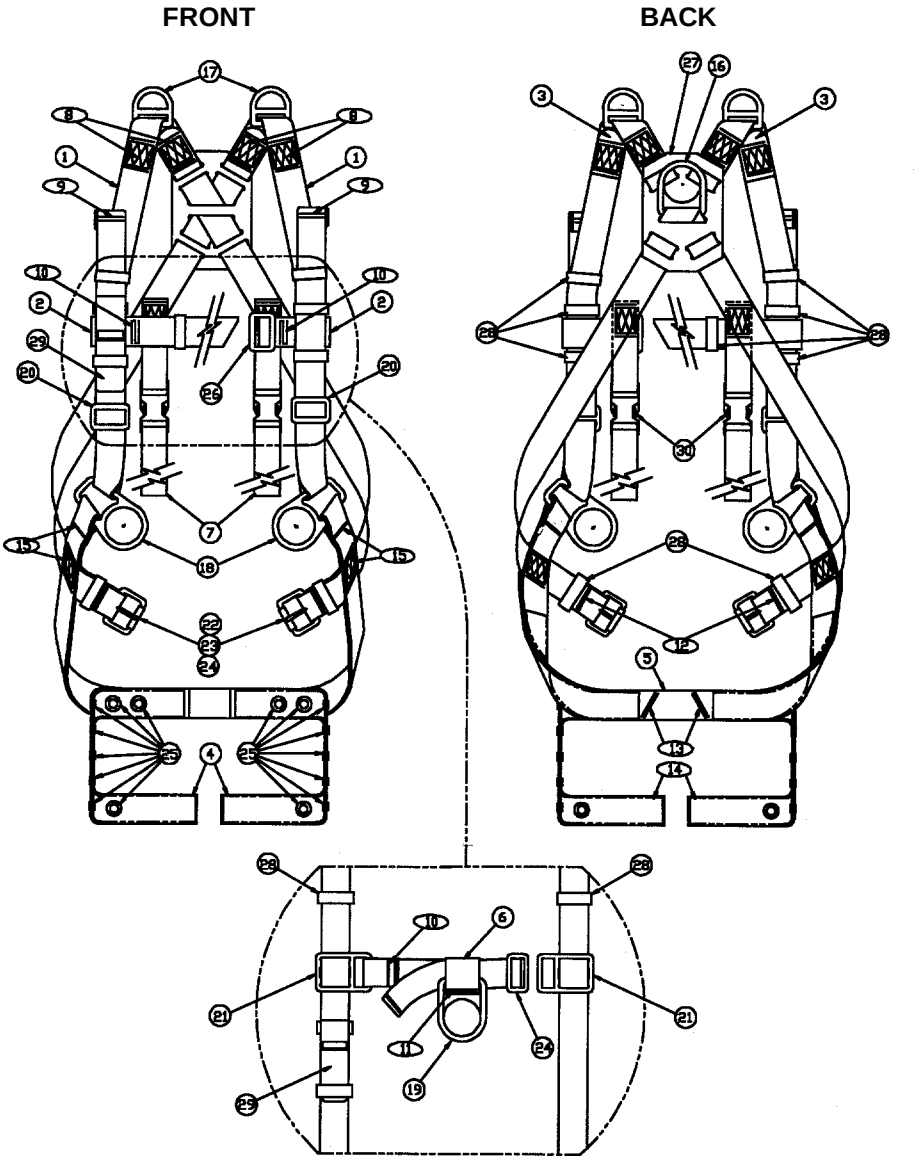
INSP. POINT	DESCRIPTION	QTY/H	PTY	COND. (b)	OVERALL ASSESS.(b)	COMMENTS
	FABRIC (FIBROUS) PARTS					
	WEBBING (STRAPS)					
1	Shoulder	2	1			
2	Shoulder strap retainer	2	1			
3	Shoulder D-ring strap	2	1			
4	Thigh	2	1			
5	Sub-pelvic	1	1			
6	Front D-ring strap	1	1			
7	Tool belt support (a)	2	2			
	STITCHING					
8	Shoulder ring strap	4	1			
9	Shoulder strap tip	2	1			
10	Shoulder strap retainer	2	1			
11	Front D-ring strap	1	1			
12	Buckle strap	2	1			
13	Thigh strap	2	1			
14	Thigh strap edges	4	2			
15	Sub-pelvic strap	4	1			
	METALLIC PARTS					
	D-RINGS/OVAL RINGS					
16	Back	1	1			
17	Shoulder	2	1			
18	Hip	2	1			
19	Chest	1	1			
	BUCKLES/ADJUSTERS/ GROMMETS					
20	Adjuster, torso sizing	1	1			
21	Adjuster/Buckle, Chest	2	1			
22	Buckle,tongue	2	1			
23	Buckle, friction	2	1			
24	Buckle, Qwik-Fit™	3	1			
25	Grommets, thigh strap	16	1			
26	Retainer buckle	1	1			
	PLASTIC PARTS					
27	Back D-ring locator	1	1			
28	Strap collar	9	1			
29	Labels	5	1			
30	Tool belt support clips (a)	2	2			

(a) Optional item.

(b) Optional simplified PASS/FAIL inspection format: Whenever an acceptable condition is found, the entry in the COND. and OVERALL ASSESS. columns may be left blank. Whenever a defective condition is found, enter "FAIL." The inspection may end upon detection of a single Priority 1 defect or three Priority 2 defects.

(c) Blank copies of the LOG, with associated CHECKLIST and DIAGRAM, are available from Rose Manufacturing Company. Call Toll Free (800) 722-1231

12.6 FORMAL INSPECTION DIAGRAM



QWIK-FIT™ DETAIL WITH FRONT D-RING

Unless otherwise noted below, the above circled inspection points apply to all Vestype harnesses.Optional tool belt, comfort pads, back pad and hardware cuff are not shown.

INSPECTION POINT	NOTE
7, 30	Not present on some harness models.
18	When hip D-rings are not present, oval rings exist in their places.
3, 8, 17	Not present on harness models without shoulder D-rings.
19	Not present on some harness models.
22, 23 24	Harness models may have either tongue, friction or Qwik-Fit™ buckles.
25	Grommet quantity 16 is for all sizes except SXL (which has 24 grommets).
29	Information on label sets may differ between harness models.

WARRANTY

Express Warranty – Rose/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 Rose/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. Rose/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 Rose/MSA may bind Rose/MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. Rose/MSA makes no warranty concerning components or accessories not manufactured by Rose/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. ROSE/MSA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. For additional information please contact the Customer Service Department at 1-800-MSA-2222 (1-800-672-2222).

ROSE MANUFACTURING COMPANY ■ 2250 SOUTH TEJON STREET

ENGLEWOOD ■ COLORADO ■ 80110-1000 ■ USA

TEL. (303) 922-6246 ■ TOLL FREE (800) 722-1231 ■ FAX (303) 934-9960

