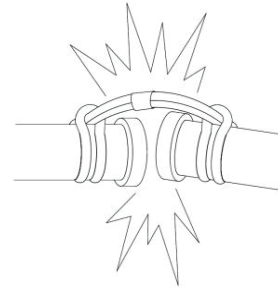


## HHS Polyester Hose Halter Safety Bulletin 036



### **WARNING**

**Failure to Read, Understand and Follow** the information in this bulletin may result in severe **INJURY** or **DEATH** due to failure and/or loss of securement of the restraint. This bulletin contains important safety information. It **MAY NOT** contain all of the information you need to know about safely securing materials for specialized applications. It is your responsibility to consider all risk factors prior to using any securement device or product.

- 1. Users must be trained** in the selection, use and inspection of *HHS Hose Halters*.
- 2. Periodically inspect *Hose Halters*** and remove from service if damaged.
- 3. Protect *HHS Hose Halters* from being cut or damaged** by corners, protrusions, or from contact with edges that are not well rounded (See Table 3-1), using materials of sufficient strength, thickness and construction to prevent damage.
- 4. Use *Hose Halters* properly** - Do not exceed the prescribed pressure ratings without consent from Lift-All or the equipment manufacturer.
- 5. Stand clear of pressurized systems.** Where practical, seek to stand clear of pressurized systems to avoid dangers from potential flying materials.
- 6. Maintain and store *Hose Halters* properly.** *Hose Halters* should be protected from mechanical, chemical and environmental damage.

### **1. Hose Halter Users Must be Trained and Knowledgeable**

*Hose Halter* users must be knowledgeable about their safe and proper use. If you are unsure whether you are properly trained and knowledgeable, ask your employer for information and/or training— **DO NOT** use *Hose Halters* if you are unsure about their proper use. Lack of skill, knowledge or care can result in severe **INJURY** or **DEATH** to you and others.

### **2. Inspect *Hose Halter* for Damage**

Damage to a *Hose Halter* can significantly reduce its capacity to secure materials and increases the chance that it could fail during use. If you are not sure if a *Hose Halter* is damaged, **DO NOT USE IT**.

#### **2a. How to inspect HHS *Hose Halters***

Perform a visual inspection of the entire *Hose Halter* and feel along its entire length for any of the types of conditions listed in Table 2-1.

#### **2b. Removal from service**

Remove *HHS Hose Halter* from service immediately if ANY of the listed types of damage are detected. Never ignore damage or attempt to perform temporary repairs on damaged *Hose Halters*.

### **2c. Inspection Frequency**

**Initial Inspection** – Each new *Hose Halter* must be inspected by a designated person to help ensure that the correct one has been received, is undamaged, and meets applicable requirements for its intended use.

**Periodic Inspection** - Every *Hose Halter* must be inspected "periodically".

The frequency of periodic inspections should be based on the *Hose Halter's* actual or expected use, severity of service, and experience gained during the inspection of others used in similar circumstances, but should not exceed a one year interval.

A written record of the most recent periodic inspection must be maintained.

#### **Table 2-1. Removal from service criteria:**

- Any damage to the cover that exposes the red striped core yarns of the *HHS Hose Halter*, such as excessive abrasive wear, holes, tears, cuts, snags, or embedded materials.
- Broken or worn stitches in the cover exposing the core yarns.
- Identification tag is missing or not readable.
- Hose Halters* that have been tied into knots.
- Any heat or chemical damage, i.e. acid or alkali burns, melting or weld spatter.
- Remove *Hose Halters* from service once activated during a pressure release event.
- Any conditions which cause doubt as to the strength of the *Hose Halter*.

### 3. Protect from Damage

**ALWAYS protect Hose Halters from being cut or damaged by corners, edges and protrusions using protection sufficient for each application.**

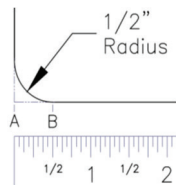
#### 3a. Exposure to edges

Exposure of *HHS Hose Halters* to edges with a radius that is too small can cause premature failure and loss of containment. Edges do not need to be "sharp" to weaken the *HHS Hose Halter*. Table 3-1 shows the minimum allowable edge radii suitable for contact with unprotected Hose Halters. Chamfering or cutting off edges is not an acceptable substitute for fully rounding the edges to the minimum radius. They can also be damaged from contact with edges or burrs at the Hose Halter connections.

Table 3-1 Minimum Edge Radii suitable for contact with unprotected *HHS Hose Halters*

HHS Restraint Code	Minimum Edge Radii (in.)	
HHS3	.14	3/16
HHS6	.21	1/4
HHS9	.26	5/16
HHS12	.30	5/16
HHS15	.33	3/8
HHS18	.40	7/16
HHS24	.41	7/16
HHS28	.44	7/16
HHS36	.50	1/2
HHS46	.56	9/16
HHS60	.67	11/16

Figure 3-1. Measure the edge radius. The radius is equal to the distance between points A and B.



#### 3b. Hose Halters Protection

A qualified person must select materials, and methods that adequately protect Hose Halters from edges or surfaces. Sleeves, wear pads, corner protectors, or other softeners are examples of materials commonly used as protection devices.

### 4. Hose Halter Selection and Use

When securing hoses and pipe connections do not exceed the specified pressure ratings.

The length of HHS Hose Halters are typically ordered as a flat length based on a value equal to 8 times the Hose OD plus the desired span or gap between the choke points of the HHS Hose Halter.

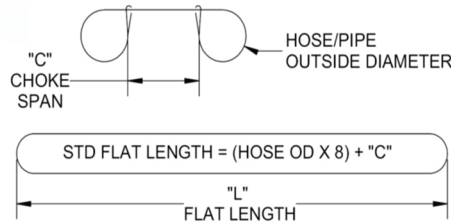


Figure 4-1

#### 4a. Connection hardware

Connection hardware is not typically needed. If hardware is used to make any connections, the surfaces must be smooth to avoid abrading or cutting Hose Halters. *Hose Halters* can also be damaged or weakened by excessive compression between the *Hose Halter* and the connection points if the size of the attachment hardware or connection area is not large enough to avoid this damage. Select and use proper connection hardware that conform to the size requirements listed in Table 4-1.

Table 4-1 Suitable hardware for use in connecting HHS Hose Halters.

HHS Hose Halter	Minimum Connection Hardware Size			
	Stock Diameter Or Thickness (in.)		Contact Width (in.)	
HHS3	.39	7/16	.97	1
HHS6	.59	5/8	1.29	1 3/8
HHS9	.72	3/4	1.66	1 3/4
HHS12	.85	7/8	1.78	1 7/8
HHS15	.95	1	2.00	2
HHS18	1.12	1 1/8	2.13	2 1/8
HHS24	1.15	1 3/16	2.62	2 5/8
HHS28	1.25	1 1/4	2.85	2 7/8
HHS36	1.41	1 1/2	3.15	3 1/4
HHS46	1.60	1 5/8	3.57	3 5/8
HHS60	1.90	2	4.00	4

Note: Fractional values have been rounded up.

#### 4b. HHS Attachment

*HHS Hose Halters* will arrive with each end pre-hitched into a choker configuration. To secure the attachment:

- Place each end of the HHS, preconfigured in a choker hitch, over the hose or pipe ending. and tighten the HHS restraint choke point into position.
- Always protect the HHS from coming into contact with any edges to avoid cutting the restraint.
- The Velcro securing the choke may be removed and reapplied to loosen or tighten the grip as desired.



Figure 4-2

- Slide the ends of the HHS restraint away from the hose or pipe joint to remove excess slack.

#### 4c. Avoid actions that cause damage to Hose Halters, such as:

- Exceeding the hose pressure ratings.
- Using hooks, shackles or other hardware that have edges or rough surfaces.
- Twisting, kinking or knotting the Hose Halter;
- Using Hose Halters to pull on stuck or constrained objects.
- Dropping or dragging Hose Halters on the ground, floor or over abrasive surfaces.
- Shortening or connecting Hose Halters by knotting, twisting, or other methods not approved by the Hose Halter manufacturer or qualified person.

- Exposing Hose Halters to temperatures above 200°F (90°C), or below -40°F (-40°C).
- Driving over Hose Halters with a vehicle or other equipment.
- Exposing Hose Halters to damaging acids or alkalis

DO NOT USE FOR LIFTING PURPOSES

### 5. All Personnel Should Remain Clear of Pressurized Systems and Alert to Risks

To prevent possible injury when using Hose Halters, all personnel should:

- Stand clear of pressurized systems, maintaining a safe distance from the hose/hose ending of at least two times the choke span length, as shown in figure 4-1. Clearance distances prescribed by the pressurized equipment manufacturer must also be followed.
- Avoid placing any parts of the body between the Hose Halter and the pressurized systems and near any connection points.

IF A HOSE SEPARATION OCCURS,  
EVACUATE PERSONNEL AND  
SHUT OFF THE POWER SOURCE.

### 6. Maintain and Store Hose Halter Properly

Attempt to keep Hose Halters clean and free of dirt, grime and foreign materials. If Hose Halters are cleaned, use only mild soap and water, and:

- Do not use bleaching agents;
- Do not machine wash or tumble dry Hose Halters, as this can significantly reduce their strength;

When not in use, Hose Halters should be stored in an area free from environmental or mechanical sources of damage, such as: weld spatter, splinters from grinding or machining, or sources of UV, heat, or chemical exposure, etc.